Independent Statistics & Analysis
U.S. Energy Information Administration

February 2022

Short-Term Energy Outlook

Forecast highlights

Global liquid fuels

- The February *Short-Term Energy Outlook* (STEO) assumes U.S. GDP grew by 5.7% in 2021 and will grow by 4.2% in 2022 and by 2.8% in 2023. We use the IHS Markit macroeconomic model to generate our U.S. economic assumptions. Global macroeconomic assumptions in this forecast are from Oxford Economics and include global GDP growth of 4.4% in 2022 and 4.0% in 2023, compared with growth of 5.8% in 2021. A wide range of potential macroeconomic outcomes could significantly affect energy markets during the forecast period. In addition, the evolving effects of consumer behavior on energy demand because of the pandemic present a wide range of potential outcomes for energy consumption. Supply uncertainty in the forecast results from the potential for disruptions, the production decisions of OPEC+, and the rate at which U.S. oil and natural gas producers increase drilling.

- Brent crude oil spot prices averaged $87 per barrel (b) in January, a $12/b increase from December 2021. Crude oil prices have risen steadily since mid-2020 as result of consistent draws on global oil inventories, which averaged 1.8 million barrels per day (b/d) from the third quarter of 2020 (3Q20) through the end of 2021. We estimate that global oil inventories fell further in January—compared with our expectation of an increase in last month's STEO—and that commercial inventories in the OECD ended the month at 2.68 billion barrels, which is the lowest level since mid-2014. Oil prices have also risen as result of heightened market concerns about the possibility of oil supply disruptions, notably related to tensions regarding Ukraine, paired with receding market concerns that the Omicron variant of COVID-19 will have widespread effects on oil consumption.

- We expect Brent prices will average $90/b in February as continuing draws in global oil inventories in our forecast keep crude oil prices near current levels in the coming months. However, we expect downward price pressures will emerge in the middle of the year as growth in oil production from OPEC+, the United States, and other non-OPEC countries outpaces slowing growth in global oil consumption. This dynamic leads to rising global oil inventories from 2Q22 through the end of 2023, and we forecast the Brent spot price will fall to an average of $87/b in 2Q22 and $75/b in 4Q22. We expect the Brent price will average $68/b for all of 2023. However, low inventory levels create an environment for potentially heightened crude oil price volatility and potential risk for

Note: EIA completed modeling and analysis for this report on Thursday, February 3, 2022

prices to rise significantly if supply growth does not keep pace with demand growth. Global supply chain disruptions have also likely exacerbated inflationary price effects across all sectors in recent months. How central banks respond to inflation may affect economic growth and oil prices during the forecast period.

- We estimate that 99.0 million b/d of petroleum and liquid fuels was consumed globally in January 2022, an increase of 6.6 million b/d from January 2021. We forecast that global consumption of petroleum and liquid fuels will average 100.6 million b/d for all of 2022, which is up 3.5 million b/d from 2021 and more than the 2019 average of 100.3 million b/d. We forecast that global consumption of petroleum and liquid fuels will increase by 1.9 million b/d in 2023.

- U.S. regular gasoline retail prices averaged $3.31 per gallon (gal) in January, unchanged from December 2021 and up 98 cents/gal from January 2021. Retail diesel prices averaged $3.72/gal in January, up 8 cents/gal from December and up $1.04/gal from last January. Product prices have risen compared with year-ago levels because of rising crude oil prices and high refining margins. We expect diesel prices will average $3.49/gal from 2Q22 through 4Q22. The forecast decline in prices reflects our expectation of falling crude oil prices, particularly in the second half of 2022 (2H22), as well as lower refining margins as refineries increase throughputs in the coming months.

- U.S. crude oil production reached almost 11.8 million b/d in November 2021 (the most recent monthly historical data point), the most in any month since April 2020. We forecast that production will rise to an average of 12.0 million b/d in 2022 and 12.6 million b/d in 2023, which would be record-high production on an annual-average basis. The previous annual average record of 12.3 million b/d was set in 2019.

Natural Gas

- In January, the natural gas spot price at Henry Hub averaged $4.38 per million British thermal units (MMBtu), up from the December average of $3.76/MMBtu. Higher prices in January were a result of colder-than-normal weather in parts of the country, particularly the Northeast and the Midwest where demand increased for natural gas used for space heating and for power generation. STEO uses weather forecasts from the National Oceanic and Atmospheric Administration (NOAA), and NOAA published the forecast we used in this STEO in late January. Temperatures have continued to be cold in parts of the country in early February, which we expect will contribute to Henry Hub prices averaging $4.70/MMBtu for the month. The winter weather forecasts are highly variable and create a significant amount of uncertainty in our price forecast. In addition, global demand for U.S. liquefied natural gas (LNG) has remained high, limiting some of the downward pressure on natural gas prices. We expect natural gas prices could remain volatile over the coming months, and the way that temperatures affect natural gas demand in February and March will be a key driver of how inventories end the

withdrawal season, which will be important for natural gas price formation in the coming months.

- We estimate that U.S. LNG exports averaged 11.2 billion cubic feet per day (Bcf/d) in January 2022, up from 10.4 Bcf/d in 4Q21, supported by large price differences between the Henry Hub price in the United States and spot prices in Europe and Asia. In particular, inventories in Europe remain much lower than their five-year averages and are contributing to strong demand for LNG imports. We expect high levels of U.S. LNG exports to continue into 2022, averaging 11.3 Bcf/d for the year, a 16% increase from 2021. The forecast reflects our assumptions that global natural gas demand remains strong and that expected additional U.S. LNG export capacity comes online.

- Colder-than-normal temperatures in January resulted in U.S. natural gas inventories falling below the five-year average to end the month at 2.3 trillion cubic feet (Tcf). We expect natural gas inventories to fall by about 730 Bcf for the rest of the withdrawal season, ending March just below 1.6 Tcf, which would be 8% less than the 2017–21 average for that time of year.

- We expect U.S. consumption of natural gas will average 105.2 billion cubic feet per day (Bcf/d) in February, down 3% from February 2021. Consumption in our forecast declines the most in the residential and commercial sectors, where consumption will average a combined 43.8 Bcf/d, down 10% from last February. We forecast electric power section consumption will be 27.8 Bcf/d in February, down 1% from last February. The changes are partly offset by industrial sector consumption, which grows by 4% from February 2021 in the forecast to average 24.8 Bcf/d for the month.

- We estimate dry U.S. natural gas production averaged 95.5 Bcf/d in the United States in January, down 2.1 Bcf/d from December 2021. Production in January was lower due, in some part, to freezing temperatures in certain production regions. We forecast natural gas production to average 95.6 Bcf/d in February and 96.1 Bcf/d for all of 2022, driven by natural gas and crude oil price levels that we expect will be sufficient to support enough drilling to sustain production growth. We expect production to rise to an average of 98.0 Bcf/d in 2023.

Electricity, coal, renewables, and emissions

- We forecast that the share of U.S. electric power sector generation produced by natural gas will average 35% in 2022 and 2023, down from 37% in 2021. The estimated cost of natural gas delivered to power generators averaged $4.97/MMBtu in 2021, and we expect it to fall to $4.16/MMBtu in 2022 and $3.86/MMBtu in 2023. Despite the forecast decline in fuel costs, the share of electricity generation from natural gas declines in the forecast because of growth in renewable generation. We expect the renewable generation share to increase from 20% in 2021 to 22% in 2022 and 24% in

2023. Increasing renewable generation contributes to our forecast that the share of generation from coal will decline from 23% in 2021 to an average of 22% over the next two years. Forecast generation from nuclear remains relatively constant through the forecast at an average generation share of 20%.

- We expect U.S. coal production to increase by almost 28 million short tons (MMst) (5%) in 2022 to 606 MMst and then rise by 18 MMst (3%) in 2023. Producers in the Powder River Basin have increased employment at mines in recent months to boost production to meet domestic demand, but we expect tight supply conditions to remain through the remainder of the year. We expect U.S. coal consumption to decrease by 2 MMst in 2022 as a 5 MMst (1%) decline in consumption from the electric power sector is somewhat offset by a 2 MMst (14%) increase in consumption for coke plants. Exports are expected to increase by 3 MMst (4%) in 2022 because international prices continue to be high for U.S. coal.

- Planned additions to U.S. wind and solar capacity in 2022 and 2023 increase electricity generation from those sources in our forecast. We estimate that the U.S. electric power sector added 16.3 gigawatts (GW) of new wind capacity in 2021. We expect 7.6 GW of new wind capacity will come online in 2022 and 4.3 GW in 2023. Utility-scale solar capacity rose by an estimated 13.9 GW in 2021. Our forecast for added utility-scale solar capacity is 21.8 GW for 2022 and 24.1 GW for 2023. We expect solar additions to account for nearly half of new electric generating capacity in 2022. In addition, in 2021, small-scale solar capacity (from systems less than 1 megawatt) increased by 5.1 GW to 32.7 GW. We project that small-scale solar will grow by 4.4 GW per year in both 2022 and 2023.

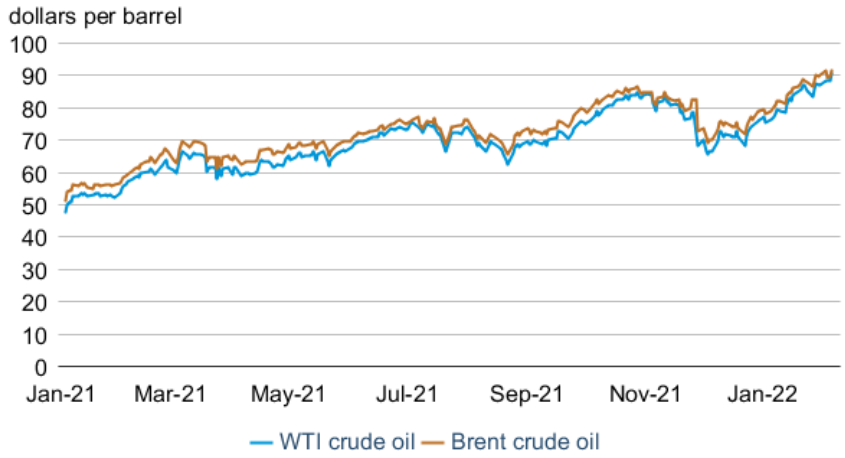
- U.S. energy-related carbon dioxide (CO_2) emissions increased by more than 6% in 2021 as economic activity increased and contributed to rising energy use. We expect a 2% increase in energy-related CO_2 emissions in 2022, primarily from growing transportation-related petroleum consumption. Forecast energy-related CO_2 emissions remain almost unchanged in 2023. We expect petroleum emissions to increase by 4% in 2022, and this growth rate slows to less than 1% in 2023. Natural gas emissions increase by 2% in 2022 and then decrease slightly in our forecast for 2023. We forecast that coal-related CO_2 emissions will decline by 1% in 2022 and by 2% in 2023.

Petroleum and natural gas markets review

Crude oil

Prices: The front-month futures price for Brent crude oil settled at $91.11 per barrel (b) on February 3, 2022, an increase of $12.13/b from the January 3, 2022, price of $78.98/b. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by $14.19/b during the same period, settling at $90.27/b on February 3 **(Figure 1)**.

Figure 1. Crude oil front-month futures prices



Source: Graph by EIA, based on CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.
Note: WTI=West Texas Intermediate

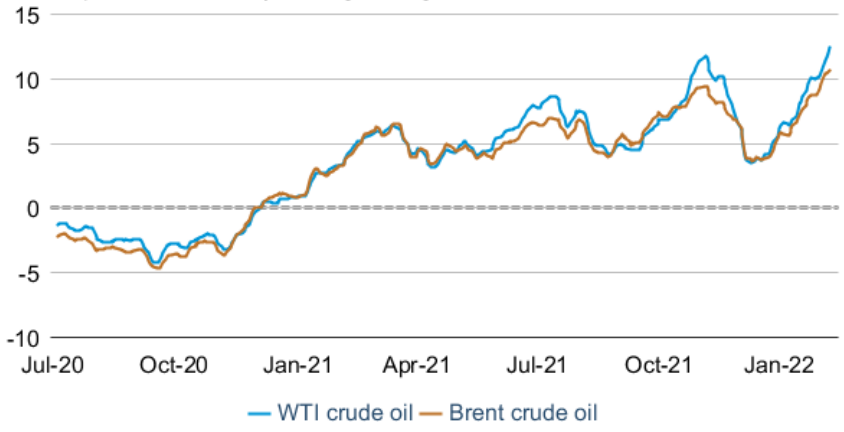
Brent crude oil prices increased throughout January as persistent global oil inventory draws and geopolitical tensions contributed to market concerns about disruptions to oil production. On several days in late-January and early February the nominal (not adjusted for inflation) front-month Brent price reached more than $90/b for the first time since October 2014. Global oil consumption has exceeded global oil supply since mid-2020, leading to six consecutive quarters of global oil inventory draws. We estimate global oil inventories declined again in January, contributing to commercially held inventories in OECD countries reaching the lowest levels since mid-2014. A major contributing factor to the low global oil inventories is some OPEC+ countries producing less than their targeted amounts due to operational difficulties ramping up production. During 4Q21, we estimate that the 10 OPEC countries subject to production targets produced less than those targets by a combined average of more than 0.6 million barrels per day (b/d).

More recently, geopolitical conflicts have also put upward pressure on oil prices. Prices can be more sensitive to concerns about supply disruptions during periods of low inventories. Tensions related to Ukraine have increased market concerns about the possibility of oil supply disruptions. In the Middle East, several missile attacks on Abu Dhabi—one of which hit a fuel

storage facility— has added to uncertainties for future oil supply, which may also be affected by political unrest in Libya and Kazakhstan. Libya's oil production has increased following blockades that shut in crude oil production in late December and early January, and production in Kazakhstan has increased following disruptions that occurred during protests from January 2–January 11 related to higher liquefied petroleum gas prices. Concerns about low oil inventories and potential supply disruptions have outweighed downward price pressure from China's announcement that it will release crude oil from its national strategic stockpiles.

Although the front-month Brent crude oil price reached more than $90/b at times in late-January, longer-dated contracts did not increase as much. This wide backwardation (when near-month prices are higher than longer-dated ones) suggests market participants are paying higher prices to secure oil from available inventories amid the large imbalance between supply and demand. The five-day moving average of the spread between prices for the 1st month futures contract and the 13th month contract for Brent widened to $10.46/b on February 3, from $5.62/b on January 3, and the spread between the 1st month futures contract and 13th month contract for WTI was even higher at $11.88/b on February 3, an increase from $6.45/b on January 3 **(Figure 2)**.

Figure 2. Crude oil front-month to 13th month futures price spread
dollars per barrel, five-day moving average

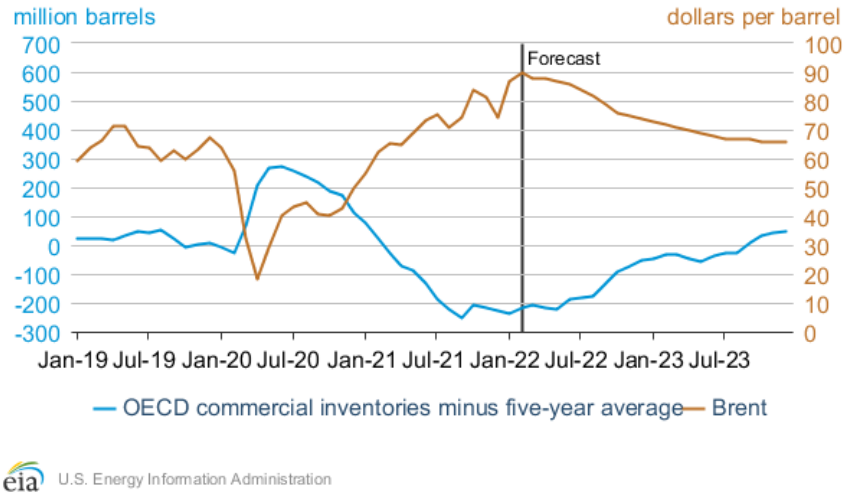


Source: Graph by EIA, based on data from CME Group and Intercontinental Exchange, as compiled by Bloomberg
Note: WTI=West Texas Intermediate

We forecast global inventory draws in February, with an average Brent spot price of $90/b. However, we expect oil inventories will begin rebuilding in March and continue throughout the forecast, which will result in lower crude oil prices. We forecast the Brent crude oil price to decrease to an average of $87/b in 2Q22 and $75/by 4Q22. We expect the Brent spot price to average $68/b in 2023. We estimate that OECD commercial inventories in January 2022 were 270 million barrels (9%) below their five-year (2017–2021) January average and that absolute inventory levels were at their lowest level since 2014 **(Figure 3)**. We forecast OECD commercial inventories will increase to their five-year average by mid-2023. Although we expect inventories to rise, the low inventory levels in recent months will likely limit downward price pressure for

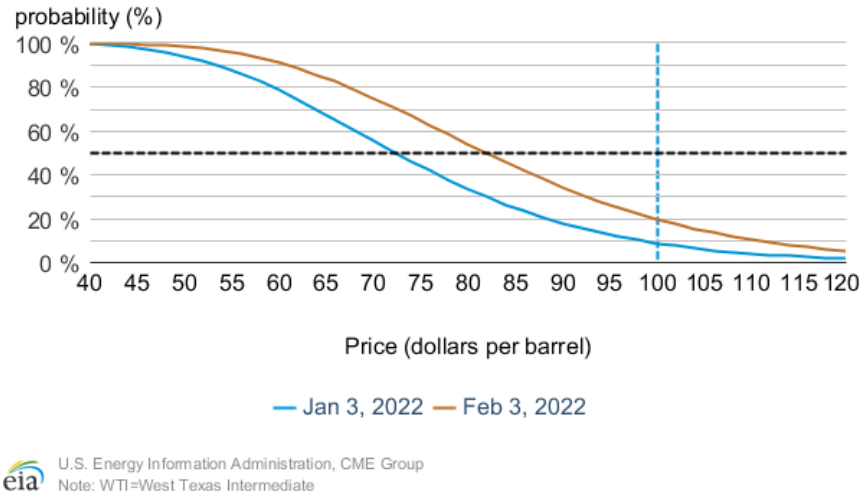
much of the first half of 2022 (1H22). In addition, until inventories move closer to five-year average levels, the potential for a supply disruption to significantly affect price levels and volatility is greater. Inventory growth in the forecast is driven by rising global oil production, largely from OPEC+ and the United States, along with slowing growth in global oil consumption. Our expectation of falling oil prices, particularly beyond 1H22, is contingent on our forecast of oil production and inventory growth. However, oil production might not meet our expectations because of possible changes in production targets from OPEC+, continuing technical issues among some producers, and changes in the investment decisions of U.S. tight oil operators, among other possible reasons.

Figure 3. OECD commercial liquid inventories minus five-year average and Brent price



Market-derived probabilities: Crude oil prices continue to be subject to high levels of uncertainty due to COVID-19-related end-user behavior, geopolitical factors, and other disruptions to global oil supply and demand. Market-derived price probabilities that are based on futures and options prices reflect this price uncertainty. As of February 3, the probability of the June 2022 WTI contract expiring at more than $90/b was 34% **(Figure 4)**. Furthermore, market participants increased trading in call options with strike prices of $100/b throughout much of January. A *call option* is a financial instrument that gives the owner the right, but not the obligation, to purchase WTI futures at a certain price by an expiration date. Call options increase in value when the WTI futures price increases. The market-derived probability of $100/b WTI for the June contract increased from 8% on January 3 to 19% on February 3. Open interest for June WTI call options with a strike price of $100/b increased from 18,079 contracts on January 3 to 23,911 contracts on February 3. Trading volume increased from an average of 862 contracts per day in the first half of the month (January 3–January 14) to an average of 1,544 contracts per day in the second half of the month (January 17–January 31). Although the market-derived price probability of $100/b WTI crude oil has increased, the probability of it expiring at less than $70/b is slightly higher, at 25%. These large differences in market-derived probabilities reflect the significant uncertainty and high volatility in the oil market.

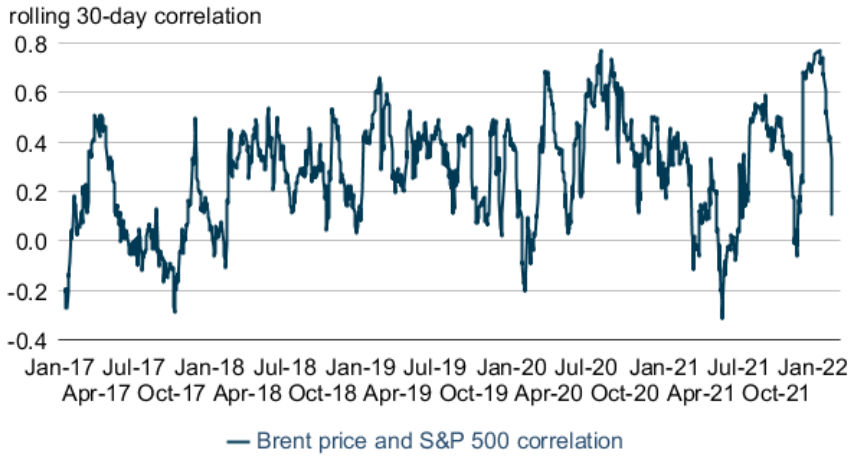
Figure 4. Probability of June 2022 WTI futures contracts expiring above different price levels



U.S. Energy Information Administration, CME Group
Note: WTI=West Texas Intermediate

Brent Price and S&P 500 correlation: Typically, the correlation between equity prices and crude oil prices are highest when demand-side factors, such as global economic growth, are driving crude oil prices. In recent weeks, the correlation between daily price changes in the S&P 500, an equity index of widely traded U.S. public companies, and Brent crude oil has decreased from a multiyear high reached on January 4. Since January 2017, the rolling 30-day correlation between the S&P 500 and Brent crude oil has been higher than 0.75 on two occasions **(Figure 5)**. The first occasion was in July 2020, when both the S&P 500 and the Brent crude oil price were increasing from their low points following the onset of the COVID-19 pandemic. The second occasion was in December 2021 and early January 2022, when equities, oil, and many other commodities were beginning to return to normal levels following a demand shock that began on November 26 when the World Health Organization designated the SARS-CoV-2 Omicron variant as a concern.

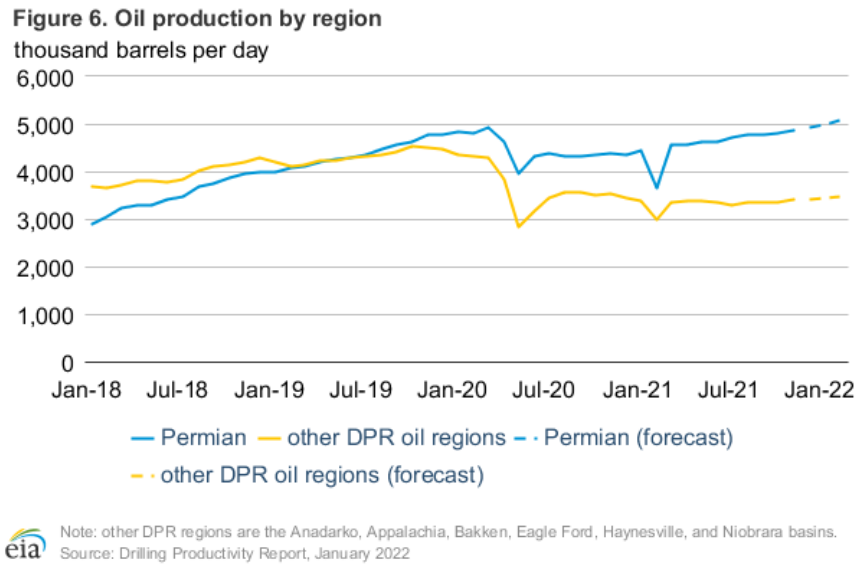
Figure 5. Brent price and S&P 500 correlation



Source: Graph by EIA, based on data from Bloomberg L.P.

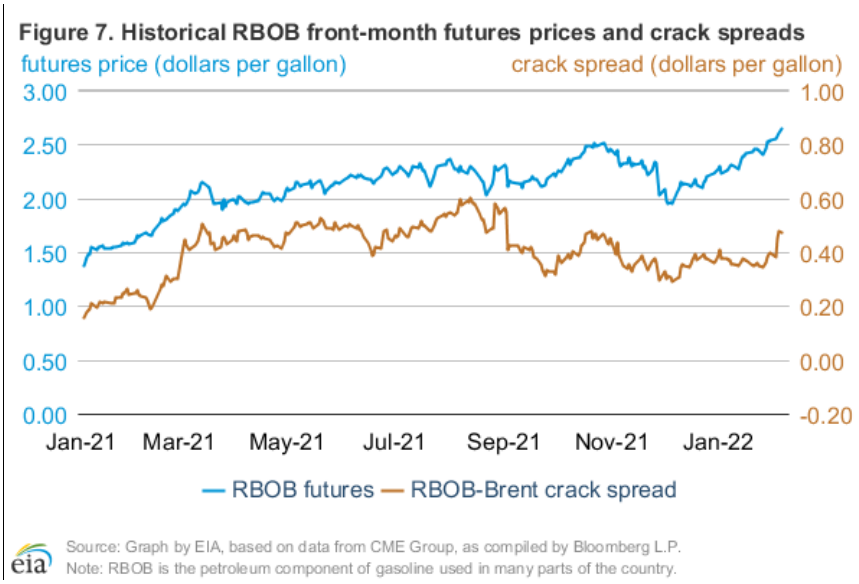
The correlation between the S&P 500 and Brent crude oil has been steeply decreasing since mid-January as concerns about the Omicron variant have lessened and factors more specific to the oil market have caused trends in crude oil prices to deviate from those of the S&P 500. Although the stock market and S&P 500 have been generally decreasing in reaction to changing expectations that the Federal Reserve may increase interest rates in 2022 more than previously expected, low oil inventories and the possibility that geopolitical issues could affect crude oil supply have been driving crude oil prices higher. As of February 3, the rolling 30-day correlation between the two was 0.11, the lowest it has been since the November 26 Omicron announcement.

U.S. production by region: After averaging 7.7 million b/d in the first half of 2021, according to our *Drilling Productivity Report*, U.S. crude oil production in all major shale regions increased to 8.2 million b/d in the second half of the year, largely because of rising production in the Permian Basin. Increases in well completions and rig counts in the Permian Basin have led to record production in that area, with forecasted oil production in the Permian Basin exceeding 5.0 million b/d for February 2022 **(Figure 6)**. The region's favorable geology combined with technological and operational improvements have supported the record production levels. In contrast to the record production in the Permian Basin, we expect production in other shale basins to average almost 3.5 million b/d in February, which is nearly 1.1 million b/d less than the record for production in these regions set in October 2019. The lack of growth and recovery in these other regions reflects more investments flowing to the Permian Basin than to other basins. According to Baker Hughes rig counts, from January 29, 2021, to January 28, 2022, the number of oil-directed rigs in the Permian Basin increased from 192 to 293. In the entire United States, the oil-directed rig count had increased by 200 during that period, meaning rig count growth in the Permian Basin accounts for more than half of the U.S. total.



Petroleum products

Gasoline prices: The front-month futures price of RBOB (the petroleum component of gasoline used in many parts of the country) settled at $2.64 per gallon (gal) on February 3, up 39 cents/gal from January 3 **(Figure 7)**. The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) settled at 47 cents/gal on February 3, up 10 cents/gal from the start of January. The average RBOB–Brent crack spread in January was 37 cents/gal, 1 cent/gal higher than the average spread in December.

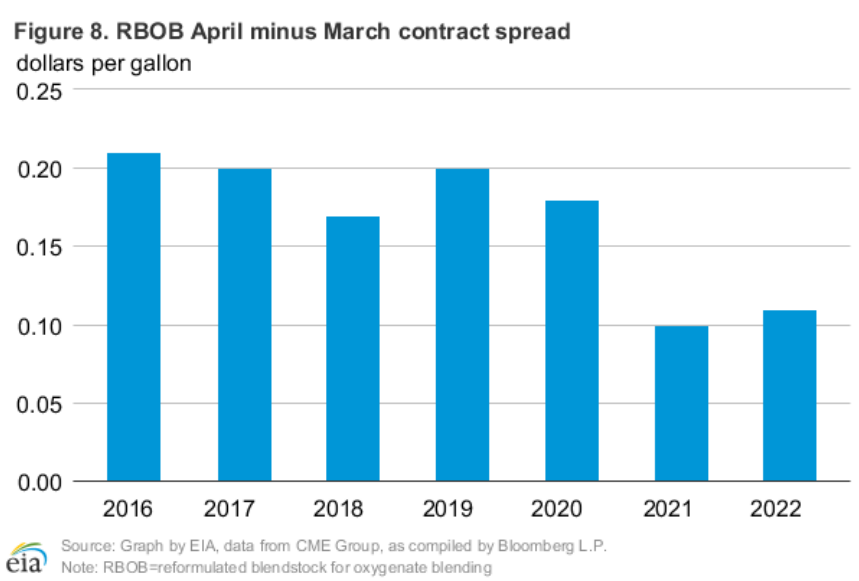


The RBOB–Brent crack spread remains wider than the five-year average for this time of year, continuing a trend of above-average crack spreads since January 2021. Since August, every

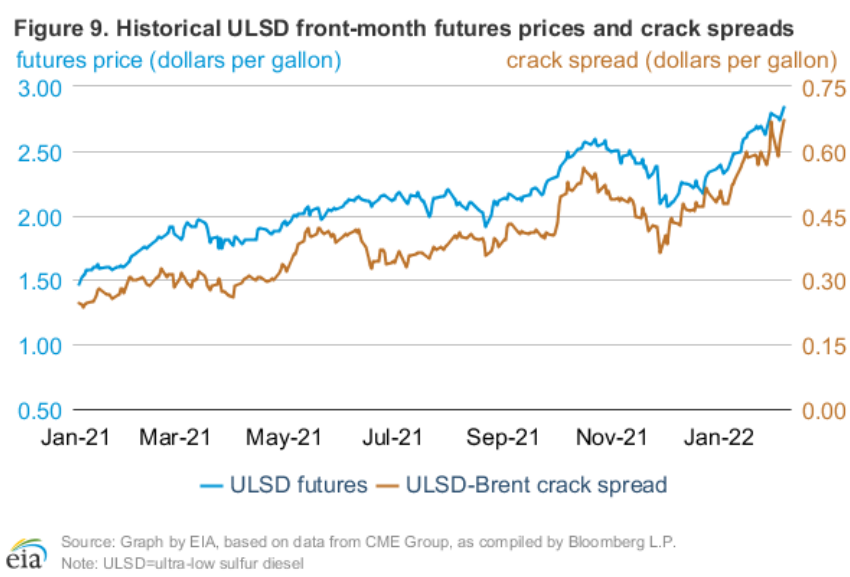
month was a record crack spread for that month in data going back to 2008. January's crack spread is more than double the five-year average. Rising crude oil prices and relatively low gasoline production contributed to higher front-month RBOB prices. Rapidly increasing crude oil prices typically reduce product crack spreads, but lower-than-average inventories are supporting these higher crack spreads.

March to April RBOB contract spread: The RBOB futures contract for April delivery is the first contract during the year that trades summer-grade gasoline, which is more expensive to produce and typically trades at higher prices than winter-grade gasoline. As a result, April contracts trade at a premium to March contracts. The 2016–2020 average spread during January trading between RBOB contracts for April delivery and RBOB contracts for March delivery was 19 cents/gal (**Figure 8**). This year the spread was 11 cents/gal, similar to the spread last year and only 1 cent/gal higher than the lowest spread recorded, which occurred in 2010. The relatively low spread could indicate new streamlining rules for testing summer-grade gasoline that the U.S. Environmental Protection Agency rolled out last year to make it easier to transition from winter to summer specifications has led to lower RBOB prices for summer-grade gasoline.

Figure 8. RBOB April minus March contract spread



Ultra-low sulfur diesel prices: The front-month futures price for ultra-low sulfur diesel (ULSD) for delivery in New York Harbor settled at $2.84/gal on February 3, a 48 cents/gal increase from January 3 **(Figure 9)**. The ULSD-Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) increased 19 cents/gal during the same period and settled at 67 cents/gal on February 3.



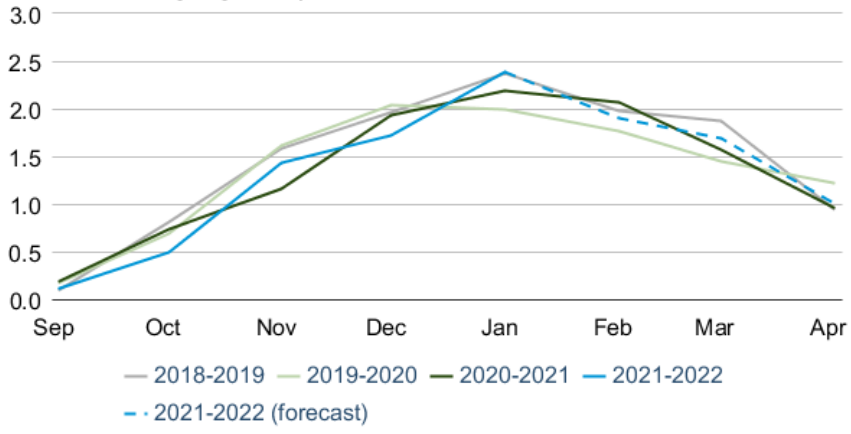
The ULSD–Brent crack spread in January averaged 57 cents/gal, up 10 cents/gal from December 2021 and up 31 cents/gal from January 2021. Rising crude oil prices throughout January contributed to the increase in outright ULSD prices, while seasonal demand for heating oil in the U.S. Northeast and mid-Atlantic regions related to cold temperatures contributed to more demand for distillate fuel oil. Lower ULSD inventories and the increasing ULSD crack spread may result from less refinery production and potential reductions in distillate yields to increase jet fuel production compared with December.

We estimate U.S. distillate consumption in January was 4.4 million b/d in January, an increase of 0.3 million b/d from December 2021, and 0.4 million b/d more than January 2021. Although more than last year, distillate consumption is at a similar level to January 2019 and is less than January 2018. We expect distillate consumption to decrease in the coming months as the weather becomes milder. Distillate inventories ended January at 123 million barrels, 19% below the five-year average. We expect continued draws on distillate inventories until June as low refinery production during turnaround season constrains production while demand for road diesel persists. Low distillate inventories, combined with high crude oil prices will contribute to higher ULSD prices, and we expect wholesale ULSD prices to remain above $2/gal through the rest of 2022 and 2023.

The increase in U.S. distillate consumption in January was driven by colder weather. We measure the effects of winter weather on energy markets by analyzing heating degree days (HDDs). The more HDDs, the colder the weather. In New England (PADD 1A) and the mid-Atlantic (PADD 1B), heating oil remains a substantial source in the energy mix in the residential home-heating sector, unlike much of the United States where home heating is primarily provided by natural gas or electricity. December 2021 temperatures in New England and the mid-Atlantic were relatively mild compared with previous seasons, and HDDs totaled 1,722 for the month, which was fewer than the past three winters and 186 HDDs fewer than the 10-year

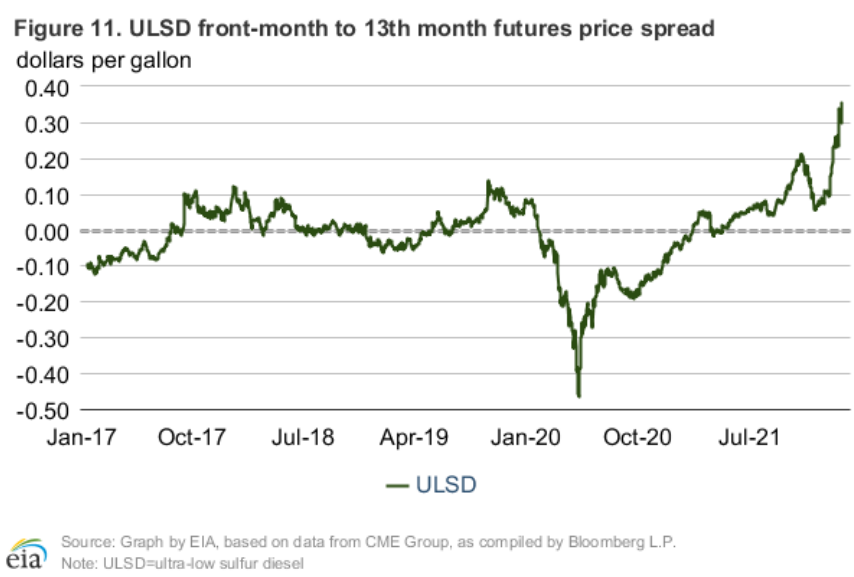
average **(Figure 10)**. January weather was cold, and HDDs increased to 2,485 HDDs, 204 HDDs more than the 10-year average. We forecast warmer weather in the coming months will lead to fewer HDDs and, as a result, less home heating oil consumption in the Northeast and mid-Atlantic.

Figure 10. U.S. Northeast (PADD 1A+1B) Heating Degree Days



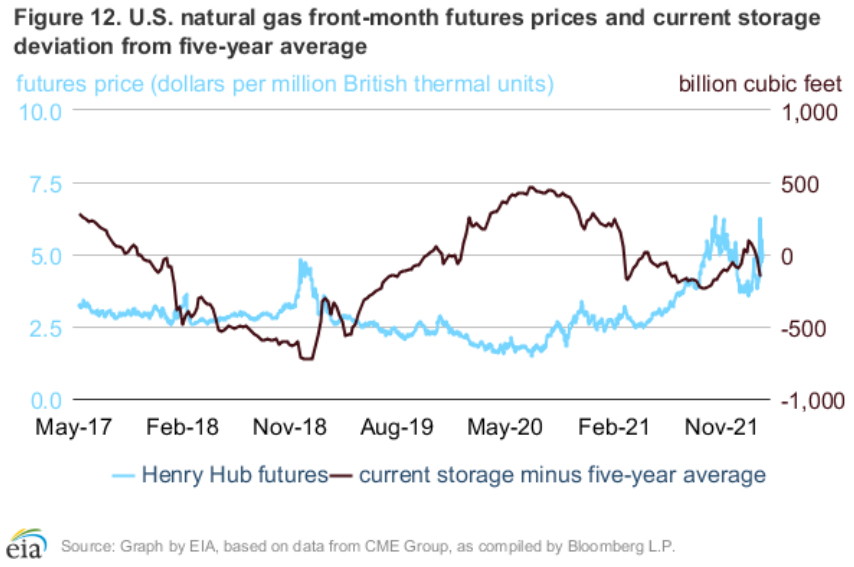
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

ULSD front 13th month spread: The spread between the front-month and the 13th month price for ULSD futures is a measure of the value of ULSD delivered in the near term compared with ULSD for delivery one year in the future. A large price spread typically indicates a market in which demand exceeds supply, leading to draws on inventories. The spread climbed rapidly in January, reaching its widest level since 2014, at 35 cents/gal as of February 3 **(Figure 11)**. The wide spread is related to distillate inventories that were 19% below the five-year (2017–2021) average for the week ending January 28, according to our *Weekly Petroleum Status Report*. The wide spread between the front-month and the 13th month contracts for crude oil is a contributing factor to the wide ULSD spread for the same contracts. Typically, the spread for ULSD is narrower than the spread for crude oil, however in January 2022, the spread for ULSD exceeded Brent crude oil by an average of 4 cents. The substantial role of seasonally related weather demand is an important element of the current high prices, and we expect that U.S. distillate consumption will decline in the coming months while refinery production of distillate will increase.



Natural Gas

Prices: The front-month natural gas futures contract for delivery at the Henry Hub settled at $4.89 per million British thermal units (MMBtu) on February 3, 2022, which was up $1.07/MMBtu from January 3, 2022 **(Figure 12)**. The average closing price for front-month natural gas futures contracts in January was $4.26/MMBtu, the highest January monthly average in real terms since January 2014.



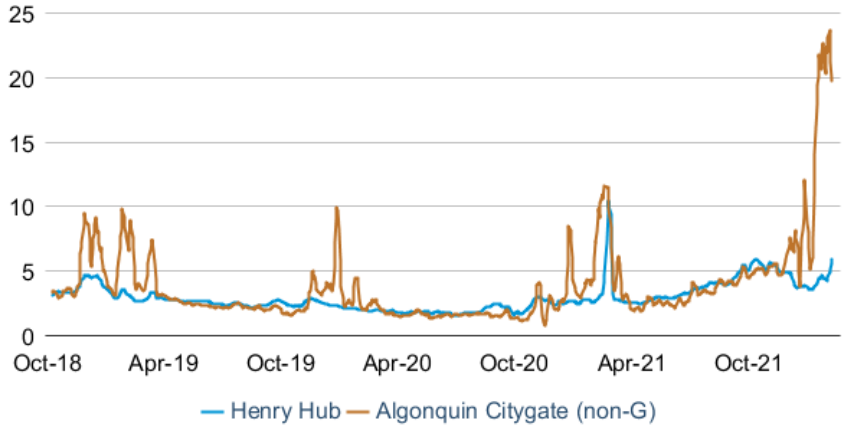
The average price for front-month natural gas futures contracts in January was 40 cents higher than the December average closing price of $3.86/MMBtu. January was colder than December, which resulted in greater use of natural gas for space heating in the residential and commercial sectors. December 2021 was much warmer than normal, and natural gas withdrawals from

storage were below the five-year average (2016−2020), which contributed to lower natural gas prices throughout the month. In January, colder-than-normal temperatures resulted in storage withdrawals that exceeded the five-year average (2017−2021) by 219 Bcf in order to meet the demand for both space heating and electric power burn. We forecast that combined demand in the residential and commercial sectors in January averaged 48.4 Bcf/d, which is 14.5 Bcf/d more than December 2021 and 3.0 Bcf/d more than the January five-year average.

Record U.S. liquefied natural gas (LNG) exports, increased power demand, and a decline in January natural gas production all contributed to above-average storage withdraws in January, putting upward pressure on prices. In January, U.S. LNG exporters continued to operate at maximum capacity, resulting in exports above 11 Bcf/d for the second consecutive month. We estimate LNG exports averaged 11.2 Bcf/d in January as the new Train 6 at Sabine Pass LNG continues to ramp up production. Continued strong demand for LNG imports in Europe and Asia supports facilities operating at maximum capacity. In addition to more LNG exports, we estimate that demand for natural gas used to generate electric power averaged 31.0 Bcf/d in January, 2.9 Bcf/d more than last year. Lastly, we estimate that U.S. dry natural gas production declined in January, averaging 95.5 Bcf, 2.1 Bcf/d less than December. Cold temperatures and freeze-offs in certain producing areas likely contributed to the decline in production.

The cold weather particularly affected New England, where well-below-normal temperatures led to increased natural gas consumption in the region. In addition, natural gas pipeline supply into New England is constrained, particularly during peak demand periods in the winter. Due to strong demand for natural gas this winter, the spot price at the Algonquin Citygate—a benchmark hub for the natural gas price in New England—exceeded $20/MMBtu on several days **(Figure 13)** and averaged $20.55/MMBtu in January—the highest monthly average price since February 2014. In the past three winters, the monthly average spot price at Algonquin Citygate traded between $3/MMBtu and $6/MMBtu, and the daily price never exceeded $14/MMBtu for any of the three winters. In contrast to the high prices this winter in the Northeast, the daily spot price at Henry Hub averaged $4.38/MMBtu in January.

Figure 13. U.S. and New England natural gas prices (five-day rolling average)
dollars per million British thermal units



Source: Graph by EIA, based on data from CME Group, as compiled by Bloomberg L.P.

Notable forecast changes

- We forecast the Brent crude oil spot price will average $83/b in 2022, which is $8/b more than we forecast in the January STEO. The higher price forecast partly reflects a reduction in our forecast of OECD inventories in 1H22. Although we continue to expect crude oil prices to decline beginning in March, crude oil price increases over the past month mean that declines will begin from a higher price level, which also contributes to higher crude oil price levels in our forecast throughout 2022. The increase in crude oil prices in the forecast also results in higher prices for gasoline and diesel fuel in 2022 compared with last month's forecast. It also results in more U.S crude oil production compared with last month's forecast.

- Based on data from the Federal Highway Administration, we updated and released historical data for vehicle miles traveled in the STEO. The latest data reflect more vehicle miles traveled in 2021 than previously reported, which increased our estimates of vehicle efficiency. As a result, we increased our forecasts for vehicle miles traveled and vehicle efficiency. The revisions to vehicle efficiency, however, were more significant and drove our forecast gasoline consumption down in both 2022 and 2023. In 2022, we now forecast that gasoline consumption in the United States will average 8.9 million b/d, down from 9.1 million b/d in the January STEO. In our February STEO, we forecast that gasoline consumption in 2023 will average 9.0 million b/d, down from a forecast of 9.1 million b/d in the January STEO.

- Beginning with this STEO, we will provide new forecasts for biodiesel, renewable diesel, and other biofuels, which includes fuels such as renewable jet fuel and renewable naphtha. In our custom table builder, we will provide production, consumption, and net imports for each of these fuels. The changes reflect the inclusion of these series in Table

10.4 of the *Monthly Energy Review* (MER) beginning in mid-2021. Related to this change, we have added a line for consumption (product supplied) of other hydrocarbons and oxygenates in Table 4a of STEO. *Product supplied of other hydrocarbons and oxygenates* is a category that includes biodiesel, renewable diesel, and other biofuels, which in the *Petroleum Supply Monthly* (PSM) are collectively called *renewable fuels excluding fuel ethanol*. In the PSM, product supplied of renewable fuels excluding fuel ethanol plus refinery and blender net inputs of renewable fuels excluding fuel ethanol is equal to the consumption of biodiesel, renewable diesel, and other biofuels as reported in MER.

- For more information, see the detailed table of forecast changes.

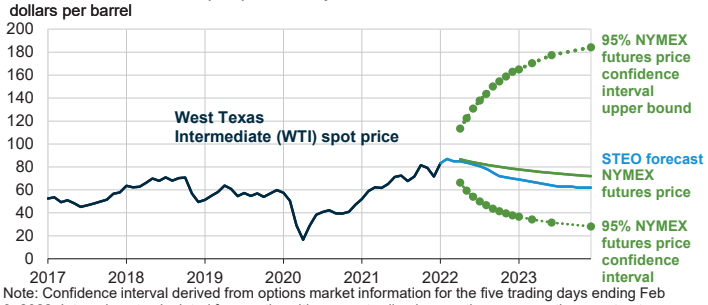
This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. Government. The views in this report therefore should not be construed as representing those of the U.S. Department of Energy or other federal agencies.

Short-Term Energy Outlook
Chart Gallery

February 8, 2022

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West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals
dollars per barrel

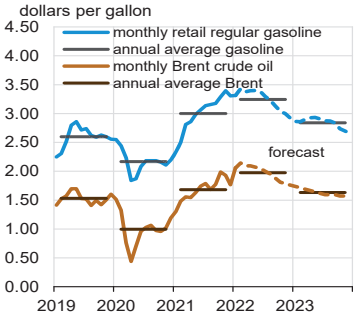


Note: Confidence interval derived from options market information for the five trading days ending Feb 3, 2022. Intervals not calculated for months with sparse trading in near-the-money options contracts.

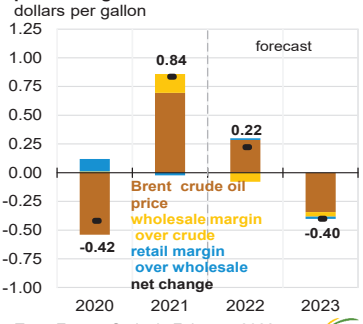
Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022, CME Group, Bloomberg, L.P., and Refinitiv an LSEG Business

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U.S. gasoline and crude oil prices
dollars per gallon



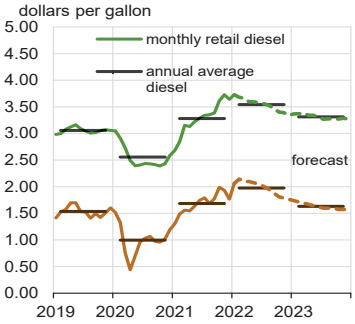
Components of annual gasoline price changes
dollars per gallon



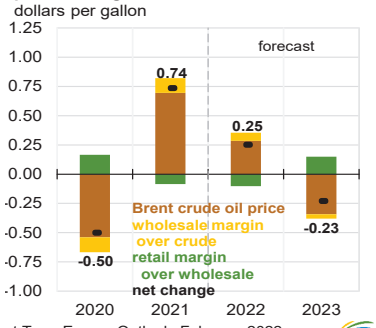
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022, and Refinitiv an LSEG Business

eia

U.S. diesel and crude oil prices



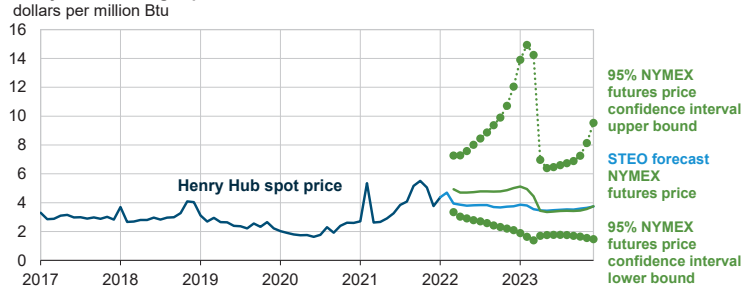
Components of annual diesel prices changes



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022, and Refinitiv an LSEG Business

Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu

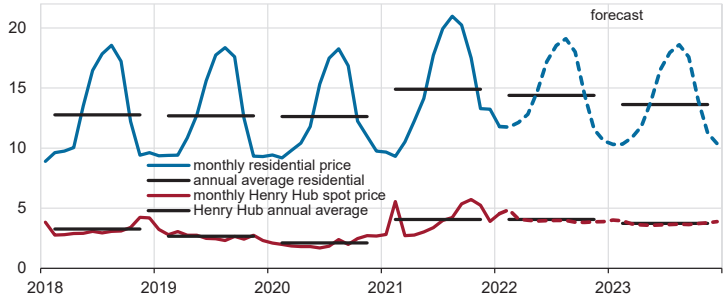


Note: Confidence interval derived from options market information for the five trading days ending Feb 3, 2022. Intervals not calculated for months with sparse trading in near-the-money options contracts.

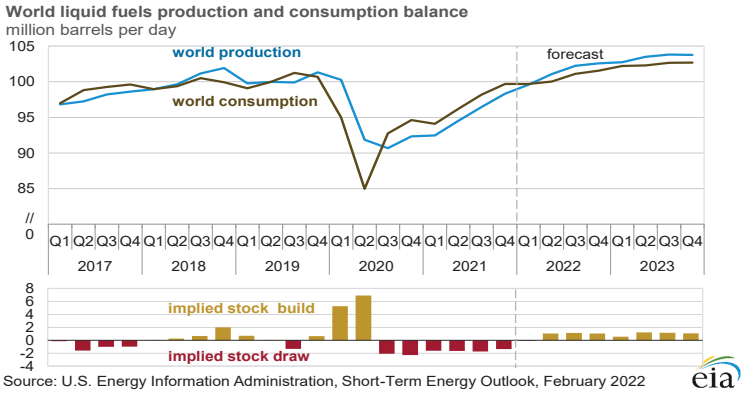
Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022, CME Group, and Refinitiv an LSEG Business

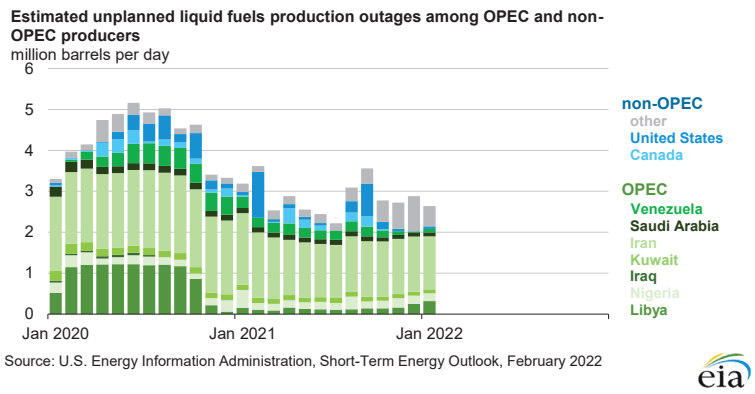
U.S. natural gas prices

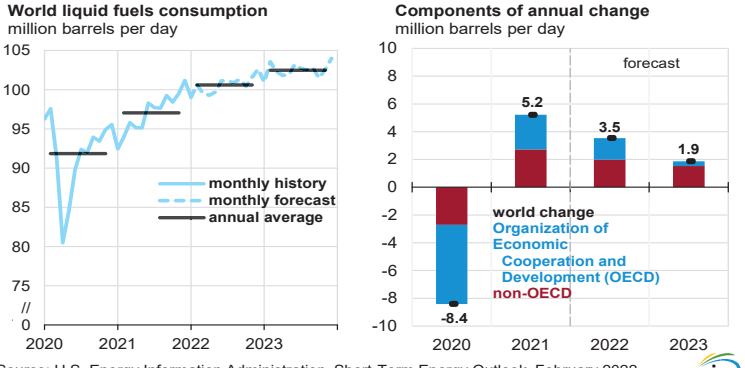
dollars per thousand cubic feet

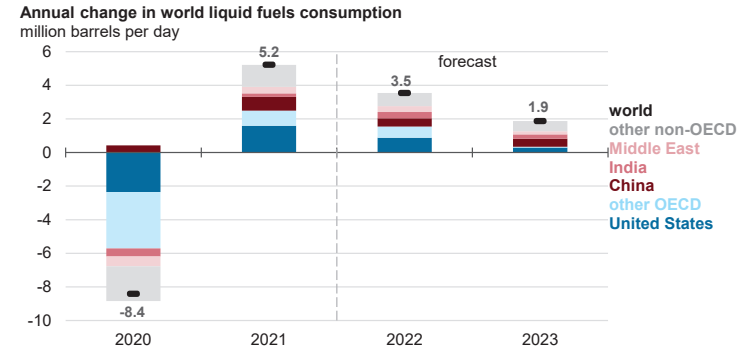


Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022, and Refinitiv an LSEG Business

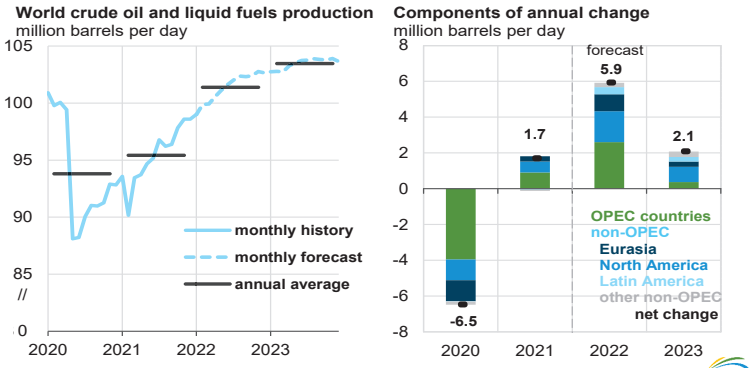

World liquid fuels production and consumption balance
million barrels per day
105
100
95
90
85
0
world production
world consumption
forecast
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
2017
2018
2019
2020
2021
2022
2023
8
6
4
2
0
-2
-4
implied stock build
implied stock draw
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022
eia


Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers
million barrels per day
6
5
4
3
2
1
0
Jan 2020
Jan 2021
Jan 2022
non-OPEC
other
United States
Canada
OPEC
Venezuela
Saudi Arabia
Iran
Kuwait
Iraq
Nigeria
Libya
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022
eia

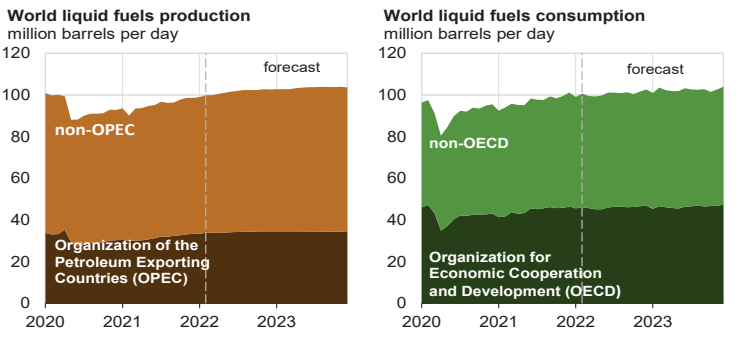

World liquid fuels consumption
million barrels per day
105
100
95
90
85
80
75
0
monthly history
monthly forecast
annual average
2020
2021
2022
2023
Components of annual change
million barrels per day
10
8
6
4
2
0
-2
-4
-6
-8
-10
forecast
5.2
3.5
1.9
-8.4
world change
Organization of Economic Cooperation and Development (OECD)
non-OECD
2020
2021
2022
2023
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022
eia



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

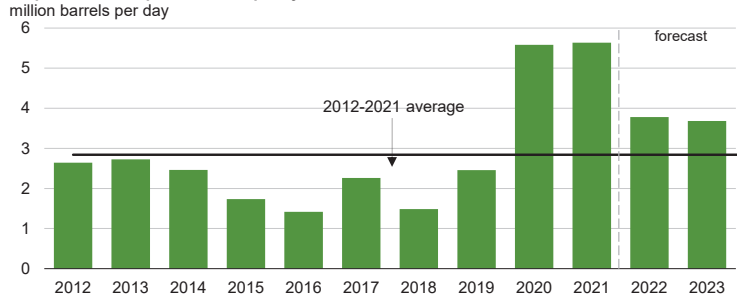


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022



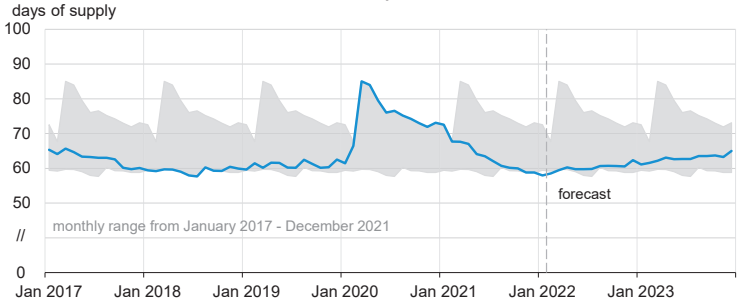
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

Organization of the Petroleum Exporting Countries (OPEC) surplus crude oil production capacity
million barrels per day



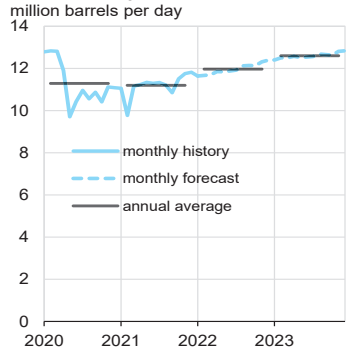
Note: Black line represents 2012-2021 average (2.8 million barrels per day).
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

Organization for Economic Cooperation and Development (OECD) commercial inventories of crude oil and other liquids
days of supply

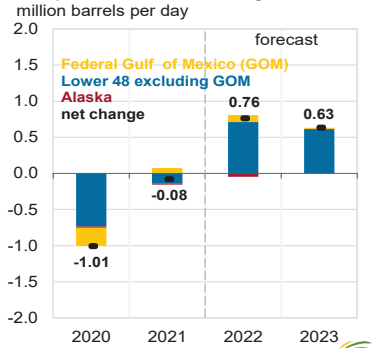


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

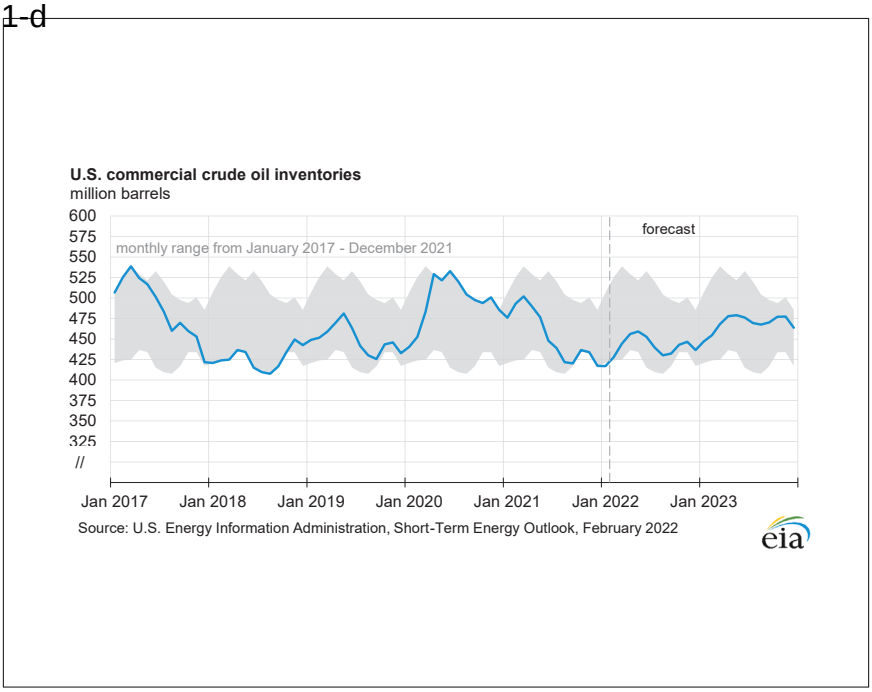
U.S. crude oil production
million barrels per day

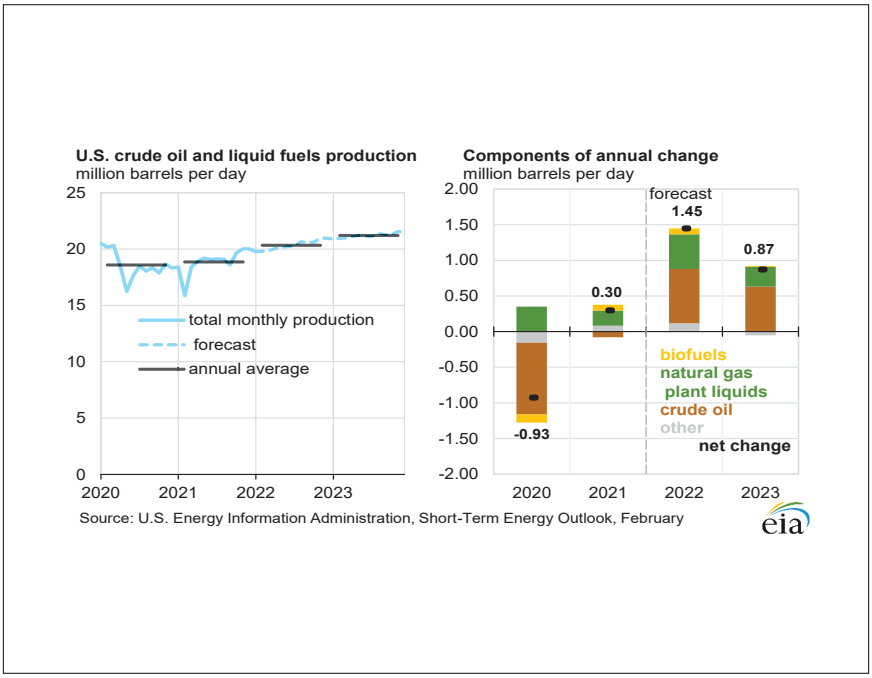


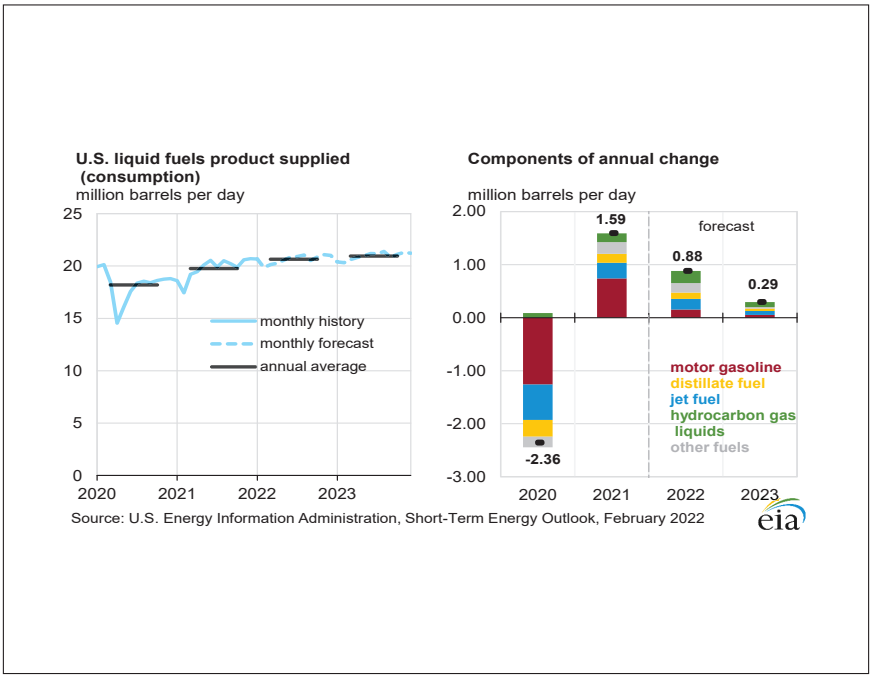
Components of annual change
million barrels per day



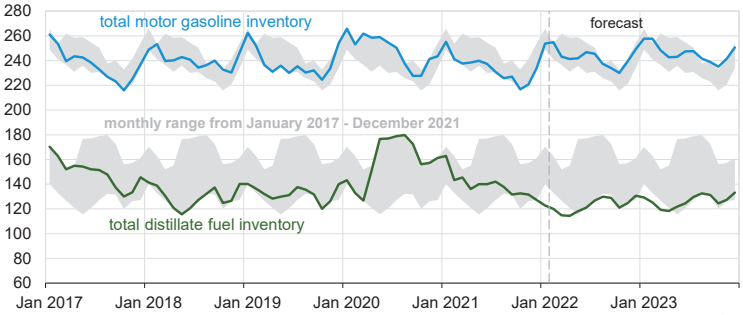
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022


U.S. commercial crude oil inventories
million barrels
600
575
550
525
500
475
450
425
400
375
350
325
monthly range from January 2017 - December 2021
forecast
Jan 2017
Jan 2018
Jan 2019
Jan 2020
Jan 2021
Jan 2022
Jan 2023
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022
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U.S. crude oil and liquid fuels production
million barrels per day
25
20
15
10
5
0
total monthly production
forecast
annual average
2020
2021
2022
2023
Components of annual change
million barrels per day
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-2.00
forecast
1.45
0.87
0.30
-0.93
biofuels
natural gas
plant liquids
crude oil
other
net change
2020
2021
2022
2023
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February
eia

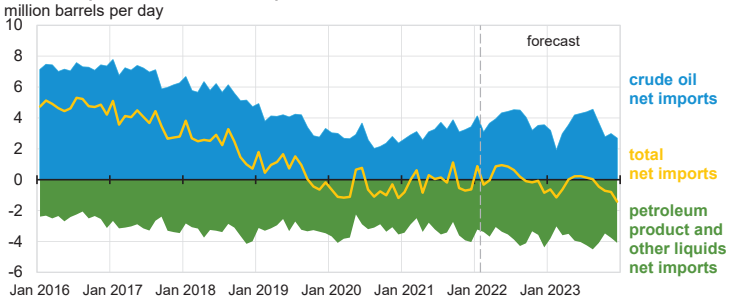

U.S. liquid fuels product supplied (consumption)
million barrels per day
25
20
15
10
5
0
monthly history
monthly forecast
annual average
2020
2021
2022
2023
Components of annual change
million barrels per day
2.00
1.00
0.00
-1.00
-2.00
-3.00
1.59
forecast
0.88
0.29
-2.36
motor gasoline
distillate fuel
jet fuel
hydrocarbon gas liquids
other fuels
2020
2021
2022
2023
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022
eia

U.S. gasoline and distillate inventories
million barrels



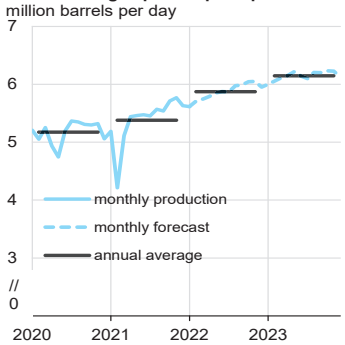
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

U.S. net imports of crude oil and liquid fuels
million barrels per day

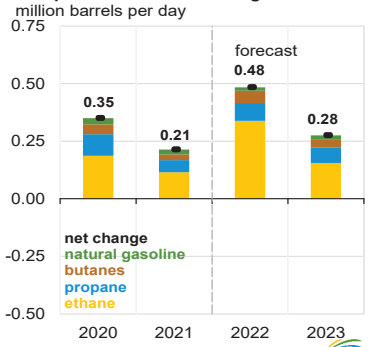


Note: Petroleum product and other liquids include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

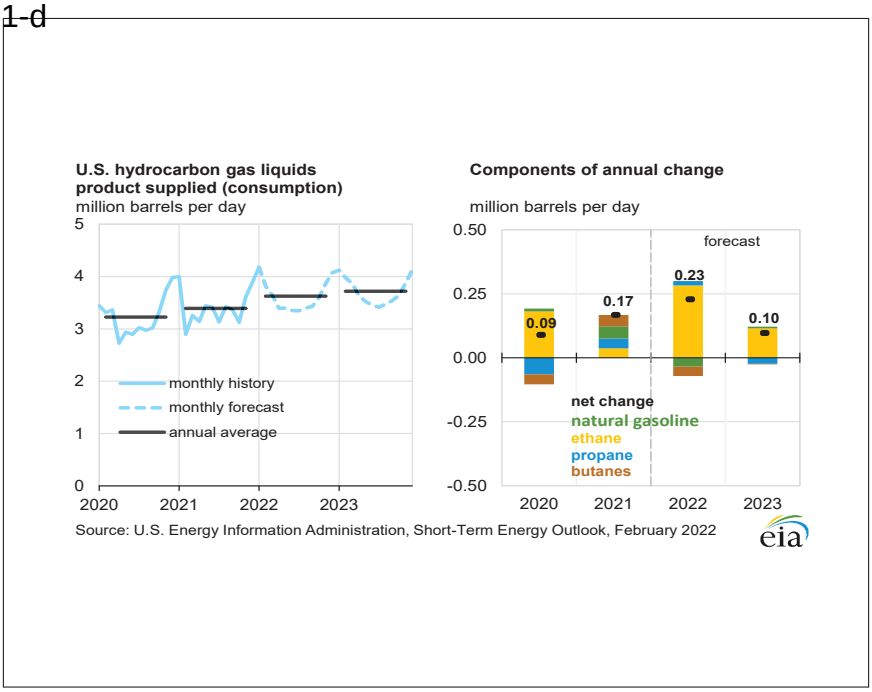
U.S. natural gas plant liquids production
million barrels per day

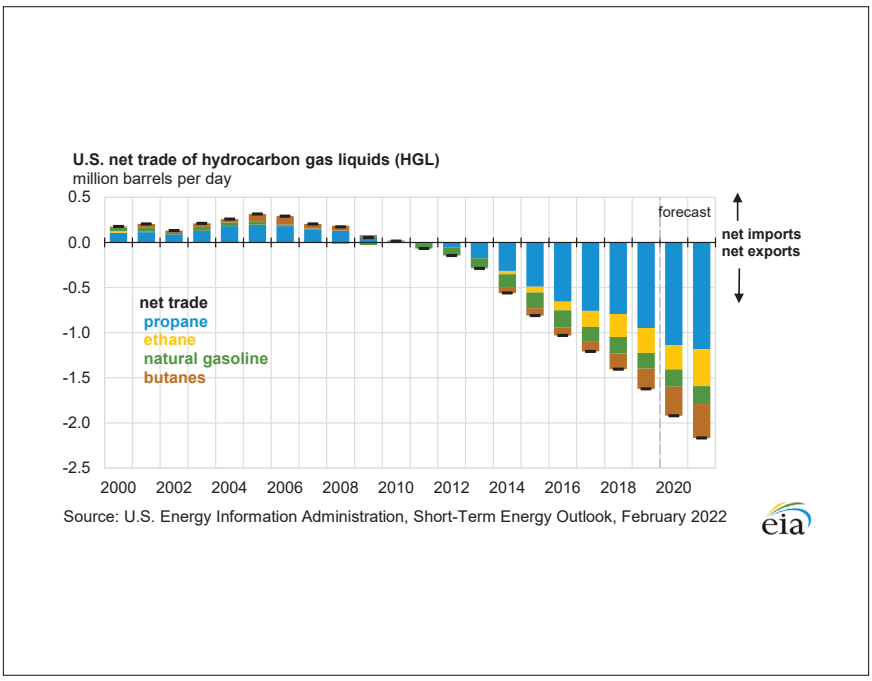


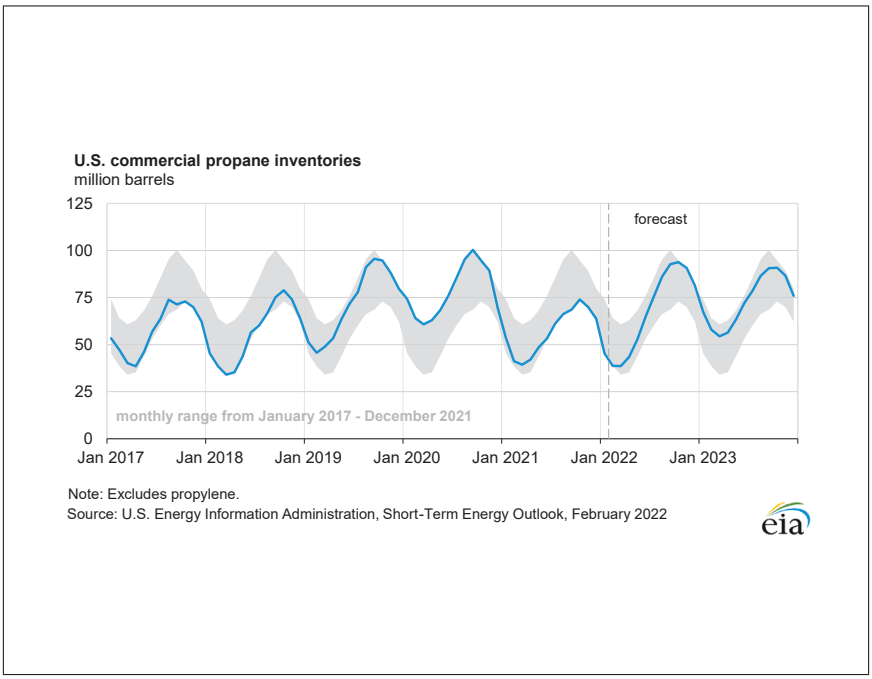
Components of annual change
million barrels per day

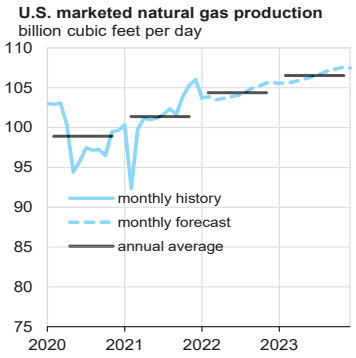


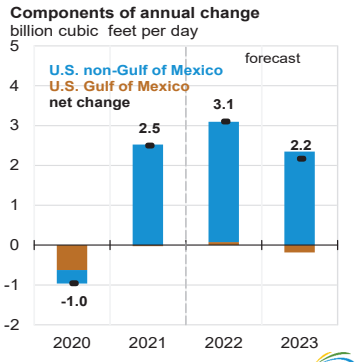
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022


U.S. hydrocarbon gas liquids product supplied (consumption)
million barrels per day
5
4
3
2
1
0
2020
2021
2022
2023
monthly history
monthly forecast
annual average
Components of annual change
million barrels per day
0.50
0.25
0.00
-0.25
-0.50
forecast
0.09
0.17
0.23
0.10
net change
natural gasoline
ethane
propane
butanes
2020
2021
2022
2023
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022
eia

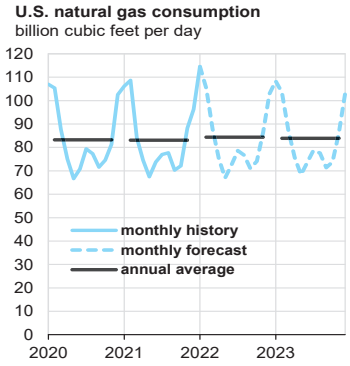

U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
forecast
net imports
net exports
net trade
propane
ethane
natural gasoline
butanes
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022
eia

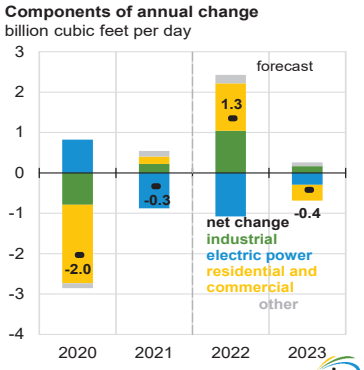

U.S. commercial propane inventories
million barrels
125
100
75
50
25
0
forecast
monthly range from January 2017 - December 2021
Jan 2017
Jan 2018
Jan 2019
Jan 2020
Jan 2021
Jan 2022
Jan 2023
Note: Excludes propylene.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022
eia



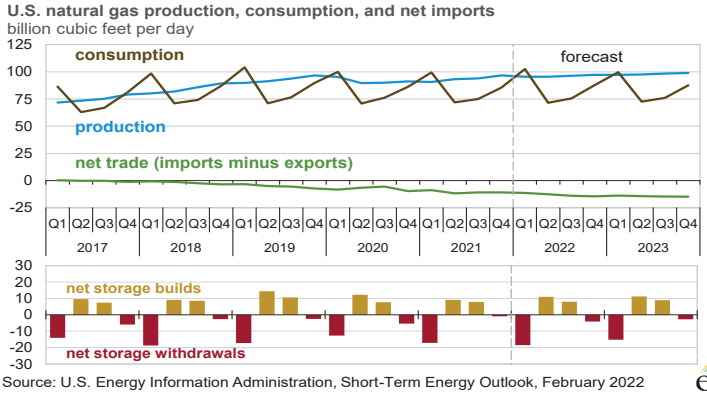


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

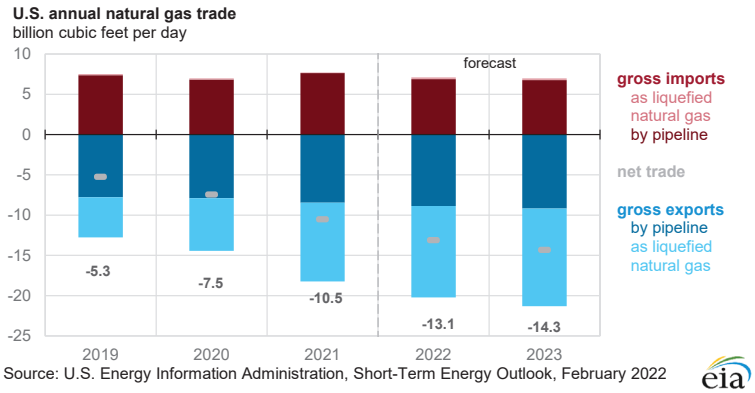




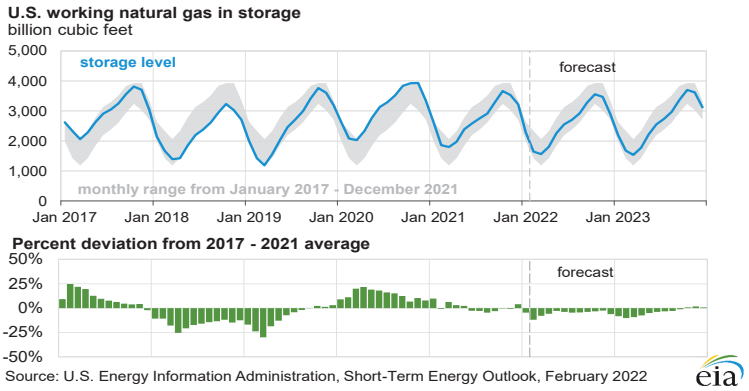
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022



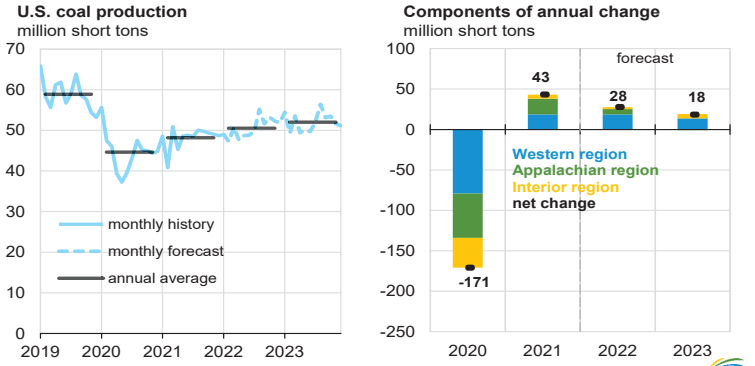
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022



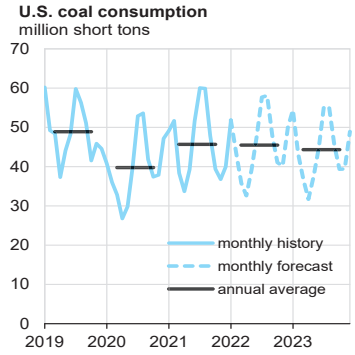
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

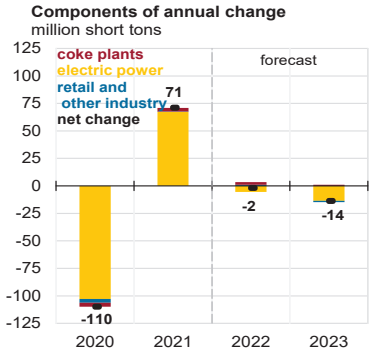


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

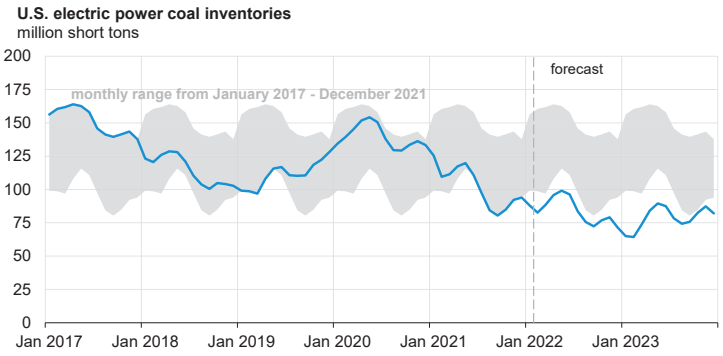


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

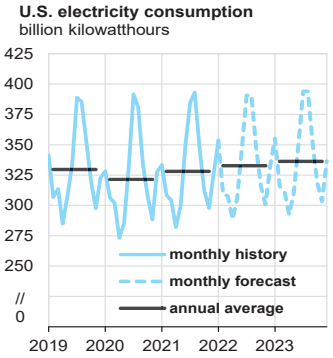


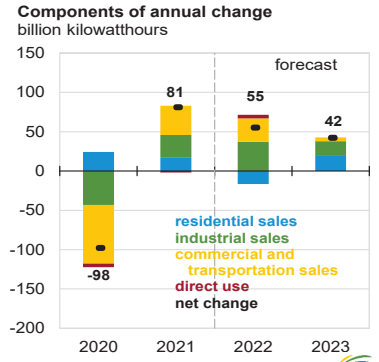


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022



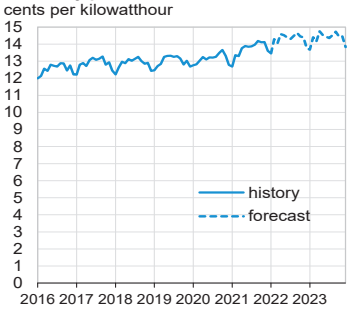
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022



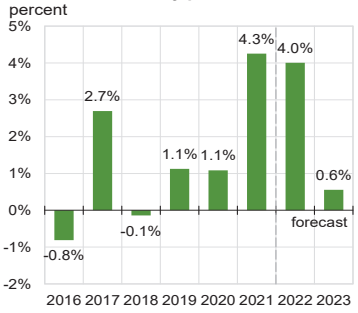


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

U.S. monthly nominal residential electricity price
cents per kilowatthour

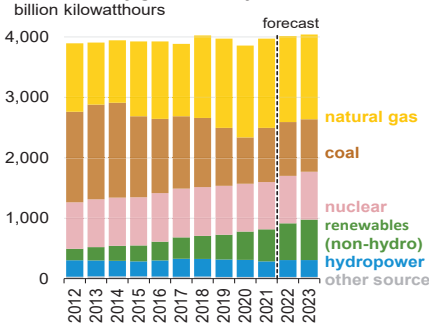


Annual growth in nominal residential electricity prices
percent

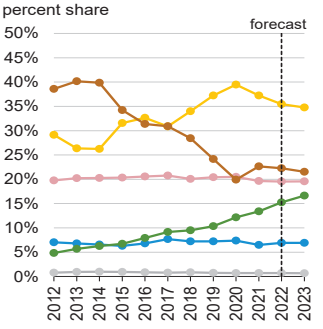


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

U.S. electricity generation by source, all sectors
billion kilowatthours

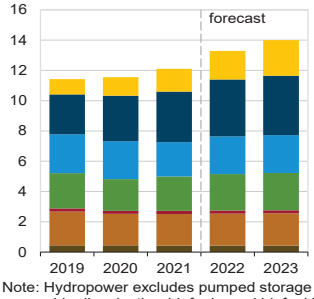


percent share

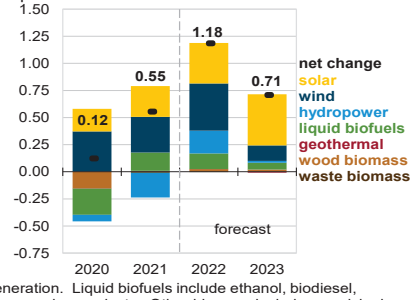


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

U.S. renewable energy supply
quadrillion British thermal units



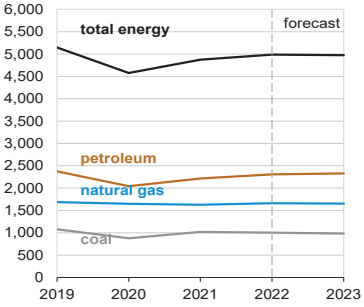
Components of annual change
quadrillion British thermal units



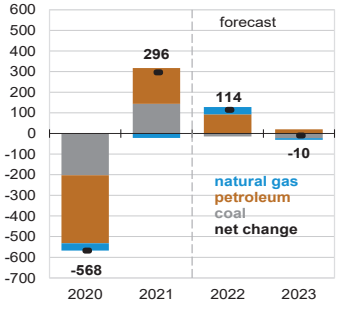
Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol, biodiesel, renewable diesel, other biofuels, and biofuel losses and coproducts. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

U.S. annual CO2 emissions by source
million metric tons

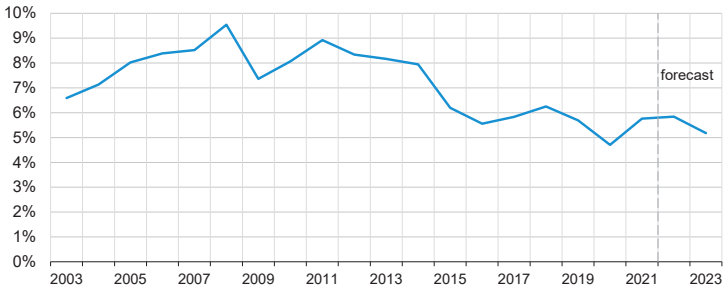


Components of annual change
million metric tons



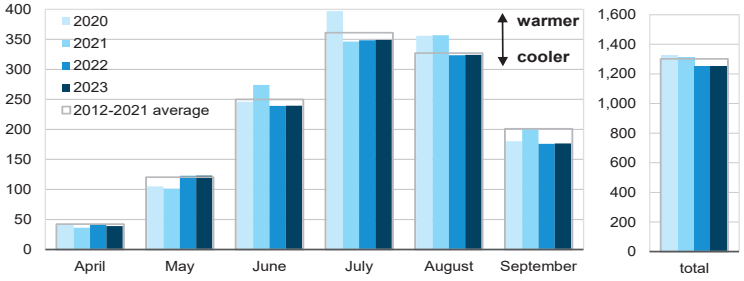
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

U.S. annual energy expenditures
share of gross domestic product



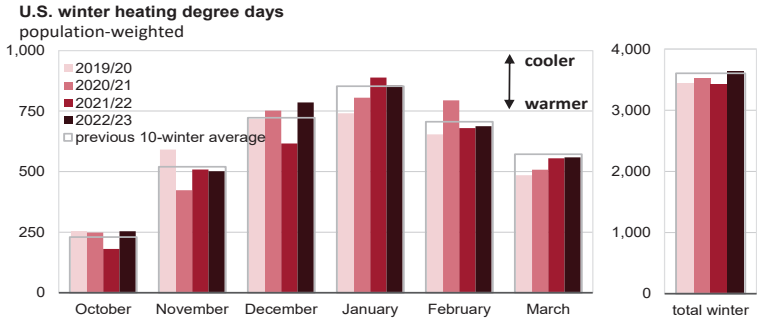
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022

U.S. summer cooling degree days
population-weighted



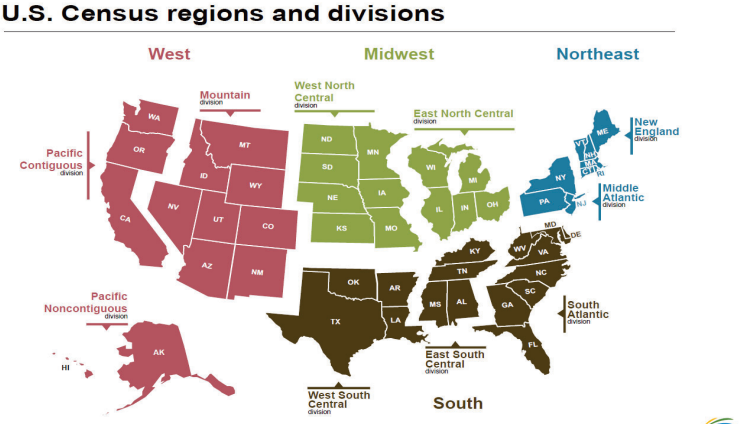
Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022



Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2022



Source: U.S. Energy Information Administration, *Short-Term Energy Outlook*

Attachment STF-235-11-d

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Energy Production															
Crude Oil Production (a)															
(million barrels per day)	**10.69**	**11.28**	**11.13**	**11.69**	*11.67*	*11.86*	*12.06*	*12.27*	*12.46*	*12.54*	*12.63*	*12.75*	**11.20**	*11.97*	*12.60*
Dry Natural Gas Production															
(billion cubic feet per day)	**90.59**	**93.15**	**93.86**	**96.69**	*95.43*	*95.54*	*96.26*	*97.12*	*97.11*	*97.57*	*98.34*	*98.84*	**93.59**	*96.09*	*97.97*
Coal Production															
(million short tons)	**140**	**143**	**148**	**147**	*147*	*145*	*156*	*157*	*157*	*149*	*161*	*156*	**578**	*606*	*624*
Energy Consumption															
Liquid Fuels															
(million barrels per day)	**18.45**	**20.03**	**20.21**	**20.39**	*20.23*	*20.56*	*20.83*	*20.98*	*20.45*	*21.00*	*21.13*	*21.21*	**19.78**	*20.66*	*20.95*
Natural Gas															
(billion cubic feet per day)	**99.40**	**71.92**	**75.08**	**85.54**	*102.47*	*71.56*	*75.50*	*87.83*	*99.56*	*72.51*	*75.97*	*87.59*	**82.92**	*84.27*	*83.85*
Coal (b)															
(million short tons)	**139**	**125**	**168**	**116**	*131*	*120*	*164*	*131*	*134*	*114*	*156*	*128*	**548**	*546*	*532*
Electricity															
(billion kilowatt hours per day)	**10.51**	**10.23**	**12.23**	**10.17**	*10.78*	*10.36*	*12.28*	*10.32*	*10.92*	*10.49*	*12.38*	*10.42*	**10.79**	*10.94*	*11.05*
Renewables (c)															
(quadrillion Btu)	**2.93**	**3.14**	**2.93**	**3.10**	*3.31*	*3.52*	*3.20*	*3.23*	*3.44*	*3.71*	*3.40*	*3.40*	**12.09**	*13.25*	*13.95*
Total Energy Consumption (d)															
(quadrillion Btu)	**25.03**	**23.14**	**24.52**	**24.56**	*26.21*	*23.66*	*25.01*	*25.43*	*26.22*	*23.99*	*25.26*	*25.64*	**97.24**	*100.32*	*101.11*
Energy Prices															
Crude Oil West Texas Intermediate Spot															
(dollars per barrel)	**58.09**	**66.19**	**70.61**	**77.27**	*85.04*	*83.63*	*77.98*	*70.98*	*67.97*	*64.95*	*63.00*	*62.00*	**68.21**	*79.35*	*64.48*
Natural Gas Henry Hub Spot															
(dollars per million Btu)	**3.56**	**2.94**	**4.36**	**4.77**	*4.34*	*3.82*	*3.79*	*3.71*	*3.74*	*3.46*	*3.52*	*3.66*	**3.91**	*3.92*	*3.60*
Coal															
(dollars per million Btu)	**1.91**	**1.93**	**2.03**	**2.04**	*2.05*	*2.06*	*1.91*	*1.91*	*1.85*	*1.85*	*1.84*	*1.82*	**1.98**	*1.98*	*1.84*
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2012 dollars - SAAR)	**19,056**	**19,368**	**19,479**	**19,799**	*19,973*	*20,144*	*20,339*	*20,477*	*20,605*	*20,726*	*20,855*	*20,989*	**19,425**	*20,233*	*20,794*
Percent change from prior year	**0.5**	**12.2**	**4.9**	**5.5**	*4.8*	*4.0*	*4.4*	*3.4*	*3.2*	*2.9*	*2.5*	*2.5*	**5.7**	*4.2*	*2.8*
GDP Implicit Price Deflator															
(Index, 2012=100)	**115.8**	**117.5**	**119.3**	**120.8**	*121.9*	*122.6*	*123.2*	*123.7*	*124.4*	*125.1*	*125.7*	*126.4*	**118.4**	*122.9*	*125.4*
Percent change from prior year	**2.1**	**4.1**	**4.6**	**5.4**	*5.3*	*4.3*	*3.3*	*2.4*	*2.0*	*2.0*	*2.1*	*2.2*	**4.1**	*3.8*	*2.1*
Real Disposable Personal Income															
(billion chained 2012 dollars - SAAR)	**17,219**	**15,807**	**15,633**	**15,365**	*15,285*	*15,397*	*15,538*	*15,617*	*15,717*	*15,834*	*15,968*	*16,097*	**16,006**	*15,459*	*15,904*
Percent change from prior year	**15.1**	**-4.3**	**-0.9**	**-0.5**	*-11.2*	*-2.6*	*-0.6*	*1.6*	*2.8*	*2.8*	*2.8*	*3.1*	**2.1**	*-3.4*	*2.9*
Manufacturing Production Index															
(Index, 2017=100)	**97.3**	**98.7**	**99.7**	**100.9**	*102.5*	*103.4*	*104.9*	*105.9*	*106.9*	*107.5*	*108.1*	*108.7*	**99.2**	*104.2*	*107.8*
Percent change from prior year	**-0.2**	**17.2**	**5.9**	**4.4**	*5.3*	*4.8*	*5.2*	*5.0*	*4.3*	*4.0*	*3.0*	*2.6*	**6.5**	*5.0*	*3.5*
Weather															
U.S. Heating Degree-Days	**2,107**	**472**	**51**	**1,306**	*2,122*	*487*	*77*	*1,541*	*2,102*	*487*	*77*	*1,539*	**3,935**	*4,228*	*4,205*
U.S. Cooling Degree-Days	**49**	**412**	**903**	**128**	*44*	*404*	*848*	*93*	*43*	*401*	*850*	*93*	**1,492**	*1,389*	*1,387*

(a) Includes lease condensate.

(b) Total consumption includes Independent Power Producer (IPP) consumption.

(c) Renewable energy includes minor components of non-marketed renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy.
EIA does not estimate or project end-use consumption of non-marketed renewable energy.

(d) The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations of gross energy consumption in EIA's Monthly Energy Review (MER).
Consequently, the historical data may not precisely match those published in the MER or the Annual Energy Review (AER).

(e) Refers to the refiner average acquisition cost (RAC) of crude oil.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Prices are not adjusted for inflation.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly* , DOE/EIA-0109; *Petroleum Supply Annual* , DOE/EIA-0340/2; *Weekly Petroleum Status Report* , DOE/EIA-0208; *Petroleum Marketing Monthly* , DOE/EIA-0380; *Natural Gas Monthly* , DOE/EIA-0130; *Electric Power Monthly* , DOE/EIA-0226; *Quarterly Coal Report* , DOE/EIA-0121; and *International Petroleum Monthly* , DOE/EIA-0520.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System. U.S. macroeconomic forecasts are based on the IHS Markit model of the U.S. Economy.
Weather forecasts from National Oceanic and Atmospheric Administration.

Attachment STF-235-11-d

Table 2. Energy Prices

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	**58.09**	**66.19**	**70.61**	**77.27**	*85.04*	*83.63*	*77.98*	*70.98*	*67.97*	*64.95*	*63.00*	*62.00*	**68.21**	*79.35*	*64.48*
Brent Spot Average	**61.12**	**68.91**	**73.45**	**79.42**	*88.13*	*86.97*	*81.64*	*74.98*	*71.97*	*68.95*	*67.00*	*66.00*	**70.89**	*82.87*	*68.48*
U.S. Imported Average	**55.27**	**64.80**	**68.38**	**72.64**	*82.43*	*81.12*	*75.57*	*68.21*	*65.28*	*62.19*	*60.25*	*59.25*	**65.72**	*77.02*	*61.59*
U.S. Refiner Average Acquisition Cost	**57.12**	**66.11**	**70.30**	**75.80**	*83.57*	*82.13*	*76.50*	*69.22*	*66.26*	*63.23*	*61.25*	*60.25*	**67.68**	*77.76*	*62.66*
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	**180**	**216**	**232**	**242**	*255*	*254*	*239*	*210*	*205*	*209*	*204*	*188*	**219**	*240*	*201*
Diesel Fuel	**178**	**204**	**219**	**241**	*262*	*255*	*243*	*228*	*215*	*209*	*206*	*205*	**211**	*247*	*209*
Fuel Oil	**162**	**180**	**197**	**216**	*249*	*237*	*221*	*216*	*211*	*196*	*188*	*196*	**190**	*232*	*204*
Refiner Prices to End Users															
Jet Fuel	**163**	**182**	**199**	**224**	*257*	*249*	*239*	*226*	*215*	*207*	*203*	*203*	**195**	*242*	*207*
No. 6 Residual Fuel Oil (a)	**162**	**181**	**194**	**203**	*193*	*198*	*185*	*167*	*173*	*166*	*162*	*159*	**188**	*186*	*165*
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	**256**	**297**	**316**	**333**	*337*	*339*	*322*	*299*	*287*	*292*	*286*	*270*	**302**	*324*	*284*
Gasoline All Grades (b)	**265**	**306**	**325**	**343**	*348*	*351*	*335*	*312*	*301*	*306*	*300*	*284*	**311**	*336*	*298*
On-highway Diesel Fuel	**290**	**321**	**336**	**366**	*369*	*359*	*352*	*338*	*337*	*333*	*327*	*327*	**329**	*354*	*331*
Heating Oil	**272**	**283**	**297**	**346**	*368*	*344*	*318*	*314*	*312*	*292*	*278*	*286*	**300**	*345*	*299*
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	**3.70**	**3.06**	**4.53**	**4.96**	*4.51*	*3.97*	*3.93*	*3.86*	*3.88*	*3.60*	*3.66*	*3.80*	**4.06**	*4.07*	*3.74*
Henry Hub Spot (dollars per million Btu)	**3.56**	**2.94**	**4.36**	**4.77**	*4.34*	*3.82*	*3.79*	*3.71*	*3.74*	*3.46*	*3.52*	*3.66*	**3.91**	*3.92*	*3.60*
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	**5.73**	**4.09**	**5.10**	**6.80**	*5.91*	*5.05*	*4.88*	*5.09*	*5.34*	*4.63*	*4.53*	*4.92*	**5.48**	*5.25*	*4.87*
Commercial Sector	**7.54**	**8.85**	**10.12**	**10.23**	*9.52*	*9.66*	*9.76*	*8.61*	*8.39*	*8.76*	*9.11*	*8.23*	**8.80**	*9.31*	*8.48*
Residential Sector	**9.75**	**13.87**	**20.38**	**13.87**	*11.87*	*14.21*	*18.52*	*11.50*	*10.47*	*13.34*	*18.02*	*11.22*	**12.29**	*12.56*	*11.67*
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**1.91**	**1.93**	**2.03**	**2.04**	*2.05*	*2.06*	*1.91*	*1.91*	*1.85*	*1.85*	*1.84*	*1.82*	**1.98**	*1.98*	*1.84*
Natural Gas	**7.24**	**3.26**	**4.36**	**5.39**	*4.73*	*4.03*	*3.94*	*4.04*	*4.29*	*3.63*	*3.64*	*3.98*	**4.97**	*4.16*	*3.86*
Residual Fuel Oil (c)	**11.28**	**13.09**	**14.22**	**15.92**	*15.27*	*16.51*	*15.35*	*14.14*	*13.72*	*13.78*	*12.66*	*12.27*	**13.62**	*15.28*	*13.09*
Distillate Fuel Oil	**13.54**	**15.20**	**16.19**	**18.00**	*19.82*	*19.56*	*18.72*	*17.66*	*16.83*	*16.23*	*15.92*	*15.93*	**15.50**	*19.05*	*16.28*
Retail Prices (cents per kilowatthour)															
Industrial Sector	**7.09**	**6.92**	**7.63**	**7.30**	*7.20*	*7.03*	*7.59*	*7.15*	*7.15*	*6.99*	*7.53*	*7.12*	**7.25**	*7.25*	*7.20*
Commercial Sector	**10.99**	**11.07**	**11.64**	**11.28**	*11.58*	*11.59*	*11.99*	*11.53*	*11.77*	*11.66*	*12.05*	*11.56*	**11.27**	*11.69*	*11.77*
Residential Sector	**13.10**	**13.84**	**14.00**	**13.92**	*13.91*	*14.49*	*14.47*	*14.18*	*14.06*	*14.56*	*14.53*	*14.21*	**13.72**	*14.26*	*14.34*

(a) Average for all sulfur contents.

(b) Average self-service cash price.

(c) Includes fuel oils No. 4, No. 5, No. 6, and topped crude.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Prices are not adjusted for inflation; prices exclude taxes unless otherwise noted.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly* , DOE/EIA-0380; *Weekly Petroleum Status Report* , DOE/EIA-0208; *Natural Gas Monthly* , DOE/EIA-0130; *Electric Power Monthly* , DOE/EIA-0226; and *Monthly Energy Review* , DOE/EIA-0035.

Natural gas Henry Hub and WTI crude oil spot prices from Reuter's News Service (http://www.reuters.com).

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 3a. International Petroleum and Other Liquids Production, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Production (million barrels per day) (a)															
OECD	**30.07**	**30.75**	**31.07**	**32.32**	*32.44*	*32.66*	*32.87*	*33.47*	*33.79*	*33.95*	*33.93*	*34.26*	**31.06**	*32.86*	*33.98*
U.S. (50 States)	**17.62**	**19.05**	**18.94**	**19.89**	*19.81*	*20.15*	*20.51*	*20.84*	*20.93*	*21.16*	*21.26*	*21.44*	**18.88**	*20.33*	*21.20*
Canada	**5.62**	**5.37**	**5.49**	**5.77**	*5.87*	*5.83*	*5.85*	*5.87*	*5.91*	*5.88*	*5.89*	*5.90*	**5.56**	*5.85*	*5.90*
Mexico	**1.93**	**1.95**	**1.90**	**1.92**	*1.96*	*1.93*	*1.90*	*1.86*	*1.90*	*1.86*	*1.83*	*1.79*	**1.92**	*1.91*	*1.85*
Other OECD	**4.91**	**4.38**	**4.74**	**4.73**	*4.80*	*4.75*	*4.61*	*4.90*	*5.04*	*5.05*	*4.95*	*5.13*	**4.69**	*4.77*	*5.04*
Non-OECD	**62.41**	**63.78**	**65.39**	**66.02**	*67.15*	*68.43*	*69.37*	*69.13*	*68.97*	*69.57*	*69.90*	*69.51*	**64.41**	*68.53*	*69.49*
OPEC	**30.24**	**30.75**	**32.15**	**33.07**	*33.75*	*33.96*	*34.40*	*34.53*	*34.65*	*34.51*	*34.50*	*34.49*	**31.56**	*34.16*	*34.53*
Crude Oil Portion	**25.08**	**25.49**	**26.84**	**27.66**	*28.17*	*28.51*	*28.89*	*28.99*	*29.09*	*29.07*	*29.01*	*28.96*	**26.28**	*28.64*	*29.03*
Other Liquids (b)	**5.16**	**5.26**	**5.31**	**5.41**	*5.58*	*5.46*	*5.50*	*5.54*	*5.56*	*5.44*	*5.49*	*5.52*	**5.29**	*5.52*	*5.50*
Eurasia	**13.38**	**13.61**	**13.58**	**14.23**	*14.43*	*14.60*	*14.75*	*14.91*	*14.98*	*14.91*	*14.95*	*15.06*	**13.70**	*14.67*	*14.97*
China	**4.99**	**5.03**	**5.01**	**4.94**	*5.01*	*5.04*	*5.04*	*5.08*	*5.06*	*5.09*	*5.08*	*5.13*	**4.99**	*5.04*	*5.09*
Other Non-OECD	**13.79**	**14.39**	**14.65**	**13.78**	*13.96*	*14.82*	*15.18*	*14.61*	*14.28*	*15.07*	*15.37*	*14.83*	**14.15**	*14.65*	*14.89*
Total World Production	**92.47**	**94.53**	**96.46**	**98.33**	*99.59*	*101.09*	*102.24*	*102.60*	*102.76*	*103.51*	*103.83*	*103.77*	**95.47**	*101.39*	*103.47*
Non-OPEC Production	**62.23**	**63.78**	**64.31**	**65.26**	*65.84*	*67.13*	*67.84*	*68.06*	*68.11*	*69.01*	*69.33*	*69.28*	**63.91**	*67.23*	*68.94*
Consumption (million barrels per day) (c)															
OECD	**42.30**	**43.98**	**45.68**	**46.01**	*45.82*	*45.45*	*46.33*	*46.62*	*46.03*	*45.90*	*46.67*	*46.97*	**44.51**	*46.06*	*46.40*
U.S. (50 States)	**18.45**	**20.03**	**20.21**	**20.39**	*20.23*	*20.56*	*20.83*	*20.98*	*20.45*	*21.00*	*21.13*	*21.21*	**19.78**	*20.66*	*20.95*
U.S. Territories	**0.20**	**0.18**	**0.18**	**0.19**	*0.20*	*0.18*	*0.19*	*0.20*	*0.19*	*0.17*	*0.17*	*0.18*	**0.19**	*0.19*	*0.18*
Canada	**2.12**	**2.16**	**2.41**	**2.37**	*2.31*	*2.29*	*2.41*	*2.38*	*2.38*	*2.33*	*2.43*	*2.41*	**2.27**	*2.35*	*2.39*
Europe	**11.91**	**12.62**	**13.83**	**13.55**	*13.20*	*13.34*	*13.68*	*13.34*	*13.19*	*13.35*	*13.75*	*13.52*	**12.98**	*13.39*	*13.45*
Japan	**3.73**	**3.08**	**3.18**	**3.47**	*3.73*	*3.08*	*3.19*	*3.52*	*3.65*	*3.05*	*3.15*	*3.47*	**3.37**	*3.38*	*3.33*
Other OECD	**5.89**	**5.91**	**5.87**	**6.05**	*6.14*	*6.00*	*6.04*	*6.20*	*6.17*	*6.01*	*6.04*	*6.18*	**5.93**	*6.09*	*6.10*
Non-OECD	**51.79**	**52.21**	**52.52**	**53.69**	*53.88*	*54.60*	*54.77*	*54.94*	*56.19*	*56.40*	*56.00*	*55.73*	**52.56**	*54.55*	*56.08*
Eurasia	**4.65**	**4.72**	**5.08**	**4.94**	*4.84*	*4.90*	*5.26*	*5.13*	*4.83*	*5.00*	*5.33*	*5.24*	**4.85**	*5.03*	*5.10*
Europe	**0.74**	**0.74**	**0.74**	**0.76**	*0.76*	*0.76*	*0.77*	*0.78*	*0.76*	*0.78*	*0.78*	*0.79*	**0.74**	*0.77*	*0.78*
China	**15.26**	**15.46**	**14.98**	**15.32**	*15.52*	*15.92*	*15.65*	*15.89*	*16.65*	*16.54*	*15.91*	*15.83*	**15.25**	*15.74*	*16.23*
Other Asia	**13.60**	**13.15**	**13.01**	**13.89**	*14.08*	*14.22*	*13.83*	*14.21*	*14.89*	*14.87*	*14.27*	*14.58*	**13.41**	*14.08*	*14.65*
Other Non-OECD	**17.55**	**18.12**	**18.71**	**18.79**	*18.68*	*18.80*	*19.26*	*18.94*	*19.06*	*19.22*	*19.70*	*19.30*	**18.30**	*18.92*	*19.32*
Total World Consumption	**94.09**	**96.19**	**98.20**	**99.70**	*99.70*	*100.04*	*101.10*	*101.56*	*102.23*	*102.30*	*102.67*	*102.70*	**97.07**	*100.61*	*102.48*
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	**0.47**	**0.51**	**0.37**	**0.84**	*0.25*	*-0.69*	*-0.15*	*0.35*	*0.08*	*-0.54*	*-0.26*	*0.59*	**0.55**	*-0.06*	*-0.03*
Other OECD	**0.81**	**0.13**	**0.96**	**0.15**	*-0.04*	*-0.11*	*-0.31*	*-0.44*	*-0.19*	*-0.21*	*-0.28*	*-0.52*	**0.51**	*-0.23*	*-0.30*
Other Stock Draws and Balance	**0.35**	**1.02**	**0.40**	**0.38**	*-0.10*	*-0.25*	*-0.67*	*-0.95*	*-0.43*	*-0.47*	*-0.62*	*-1.13*	**0.54**	*-0.49*	*-0.66*
Total Stock Draw	**1.62**	**1.66**	**1.74**	**1.37**	*0.11*	*-1.05*	*-1.13*	*-1.04*	*-0.53*	*-1.21*	*-1.16*	*-1.07*	**1.60**	*-0.78*	*-1.00*
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	**1,302**	**1,271**	**1,241**	**1,188**	*1,190*	*1,261*	*1,275*	*1,250*	*1,251*	*1,307*	*1,327*	*1,284*	**1,188**	*1,250*	*1,284*
OECD Commercial Inventory	**2,911**	**2,868**	**2,749**	**2,682**	*2,688*	*2,769*	*2,812*	*2,828*	*2,845*	*2,921*	*2,967*	*2,972*	**2,682**	*2,828*	*2,972*

(a) Supply includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

(b) Includes lease condensate, natural gas plant liquids, other liquids, and refinery processing gain. Includes other unaccounted-for liquids.

(c) Consumption of petroleum by the OECD countries is synonymous with "petroleum product supplied," defined in the glossary of the EIA *Petroleum Supply Monthly* , DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

- = no data available

OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Congo (Brazzaville), Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, the United Arab Emirates, Venezuela.

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration international energy statistics.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 3b. Non-OPEC Petroleum and Other Liquids Production (million barrels per day)

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
North America	**25.16**	**26.36**	**26.33**	**27.58**	*27.64*	*27.91*	*28.25*	*28.56*	*28.75*	*28.90*	*28.98*	*29.14*	**26.37**	*28.09*	*28.94*
Canada	**5.62**	**5.37**	**5.49**	**5.77**	*5.87*	*5.83*	*5.85*	*5.87*	*5.91*	*5.88*	*5.89*	*5.90*	**5.56**	*5.85*	*5.90*
Mexico	**1.93**	**1.95**	**1.90**	**1.92**	*1.96*	*1.93*	*1.90*	*1.86*	*1.90*	*1.86*	*1.83*	*1.79*	**1.92**	*1.91*	*1.85*
United States	**17.62**	**19.05**	**18.94**	**19.89**	*19.81*	*20.15*	*20.51*	*20.84*	*20.93*	*21.16*	*21.26*	*21.44*	**18.88**	*20.33*	*21.20*
Central and South America	**5.64**	**6.29**	**6.70**	**5.79**	*5.84*	*6.71*	*7.10*	*6.55*	*6.21*	*7.03*	*7.35*	*6.83*	**6.10**	*6.55*	*6.86*
Argentina	**0.65**	**0.69**	**0.73**	**0.74**	*0.73*	*0.74*	*0.77*	*0.78*	*0.77*	*0.78*	*0.81*	*0.83*	**0.70**	*0.76*	*0.80*
Brazil	**3.22**	**3.89**	**4.21**	**3.42**	*3.36*	*4.20*	*4.52*	*3.89*	*3.49*	*4.28*	*4.57*	*4.02*	**3.69**	*3.99*	*4.10*
Colombia	**0.77**	**0.74**	**0.77**	**0.77**	*0.76*	*0.75*	*0.74*	*0.73*	*0.68*	*0.67*	*0.66*	*0.65*	**0.77**	*0.74*	*0.66*
Ecuador	**0.51**	**0.50**	**0.49**	**0.40**	*0.49*	*0.53*	*0.53*	*0.53*	*0.54*	*0.56*	*0.58*	*0.60*	**0.47**	*0.52*	*0.57*
Other Central and S. America	**0.49**	**0.46**	**0.49**	**0.46**	*0.50*	*0.50*	*0.55*	*0.62*	*0.72*	*0.73*	*0.73*	*0.73*	**0.47**	*0.54*	*0.73*
Europe	**4.32**	**3.84**	**4.13**	**4.15**	*4.21*	*4.15*	*4.01*	*4.30*	*4.44*	*4.45*	*4.36*	*4.54*	**4.11**	*4.17*	*4.45*
Norway	**2.11**	**1.90**	**2.06**	**2.06**	*2.11*	*2.08*	*2.04*	*2.21*	*2.33*	*2.33*	*2.33*	*2.43*	**2.03**	*2.11*	*2.36*
United Kingdom	**1.06**	**0.81**	**0.93**	**0.95**	*0.97*	*0.95*	*0.85*	*0.96*	*0.99*	*1.00*	*0.91*	*0.98*	**0.94**	*0.93*	*0.97*
Eurasia	**13.38**	**13.61**	**13.58**	**14.23**	*14.43*	*14.60*	*14.75*	*14.91*	*14.98*	*14.91*	*14.95*	*15.06*	**13.70**	*14.67*	*14.97*
Azerbaijan	**0.75**	**0.70**	**0.71**	**0.71**	*0.74*	*0.74*	*0.74*	*0.73*	*0.72*	*0.71*	*0.70*	*0.72*	**0.72**	*0.74*	*0.71*
Kazakhstan	**1.87**	**1.86**	**1.72**	**2.01**	*2.03*	*2.01*	*1.98*	*2.03*	*2.07*	*1.98*	*1.98*	*2.05*	**1.87**	*2.01*	*2.02*
Russia	**10.42**	**10.71**	**10.80**	**11.16**	*11.32*	*11.49*	*11.68*	*11.79*	*11.81*	*11.86*	*11.90*	*11.93*	**10.78**	*11.57*	*11.87*
Turkmenistan	**0.24**	**0.24**	**0.24**	**0.24**	*0.23*	*0.23*	*0.23*	*0.23*	*0.24*	*0.24*	*0.24*	*0.24*	**0.24**	*0.23*	*0.24*
Other Eurasia	**0.10**	**0.10**	**0.10**	**0.11**	*0.12*	*0.13*	*0.14*	*0.13*	*0.13*	*0.13*	*0.13*	*0.13*	**0.10**	*0.13*	*0.13*
Middle East	**3.07**	**3.09**	**3.13**	**3.12**	*3.17*	*3.17*	*3.17*	*3.17*	*3.20*	*3.20*	*3.20*	*3.19*	**3.10**	*3.17*	*3.20*
Oman	**0.96**	**0.97**	**0.98**	**1.01**	*1.04*	*1.04*	*1.04*	*1.04*	*1.07*	*1.07*	*1.07*	*1.07*	**0.98**	*1.04*	*1.07*
Qatar	**1.80**	**1.82**	**1.83**	**1.83**	*1.85*	*1.86*	*1.86*	*1.86*	*1.86*	*1.86*	*1.86*	*1.86*	**1.82**	*1.86*	*1.86*
Asia and Oceania	**9.18**	**9.10**	**9.05**	**8.99**	*9.14*	*9.15*	*9.13*	*9.15*	*9.11*	*9.11*	*9.09*	*9.11*	**9.08**	*9.15*	*9.11*
Australia	**0.46**	**0.42**	**0.49**	**0.48**	*0.49*	*0.50*	*0.50*	*0.50*	*0.49*	*0.48*	*0.47*	*0.47*	**0.46**	*0.50*	*0.48*
China	**4.99**	**5.03**	**5.01**	**4.94**	*5.01*	*5.04*	*5.04*	*5.08*	*5.06*	*5.09*	*5.08*	*5.13*	**4.99**	*5.04*	*5.09*
India	**0.90**	**0.89**	**0.89**	**0.89**	*0.90*	*0.89*	*0.89*	*0.89*	*0.89*	*0.87*	*0.87*	*0.87*	**0.89**	*0.89*	*0.88*
Indonesia	**0.88**	**0.85**	**0.85**	**0.84**	*0.84*	*0.83*	*0.83*	*0.82*	*0.81*	*0.81*	*0.80*	*0.79*	**0.86**	*0.83*	*0.80*
Malaysia	**0.66**	**0.62**	**0.57**	**0.59**	*0.62*	*0.62*	*0.61*	*0.60*	*0.60*	*0.59*	*0.59*	*0.58*	**0.61**	*0.61*	*0.59*
Vietnam	**0.21**	**0.21**	**0.20**	**0.20**	*0.20*	*0.20*	*0.19*	*0.18*	*0.18*	*0.18*	*0.17*	*0.17*	**0.20**	*0.19*	*0.18*
Africa	**1.48**	**1.47**	**1.40**	**1.40**	*1.41*	*1.42*	*1.42*	*1.42*	*1.42*	*1.42*	*1.40*	*1.40*	**1.44**	*1.42*	*1.41*
Egypt	**0.66**	**0.67**	**0.65**	**0.66**	*0.65*	*0.65*	*0.65*	*0.65*	*0.64*	*0.64*	*0.64*	*0.64*	**0.66**	*0.65*	*0.64*
South Sudan	**0.16**	**0.16**	**0.15**	**0.16**	*0.17*	*0.18*	*0.18*	*0.18*	*0.19*	*0.19*	*0.19*	*0.20*	**0.16**	*0.18*	*0.19*
Total non-OPEC liquids	**62.23**	**63.78**	**64.31**	**65.26**	*65.84*	*67.13*	*67.84*	*68.06*	*68.11*	*69.01*	*69.33*	*69.28*	**63.91**	*67.23*	*68.94*
OPEC non-crude liquids	**5.16**	**5.26**	**5.31**	**5.41**	*5.58*	*5.46*	*5.50*	*5.54*	*5.56*	*5.44*	*5.49*	*5.52*	**5.29**	*5.52*	*5.50*
Non-OPEC + OPEC non-crude	**67.40**	**69.03**	**69.62**	**70.68**	*71.42*	*72.58*	*73.35*	*73.61*	*73.67*	*74.45*	*74.81*	*74.81*	**69.19**	*72.75*	*74.44*
Unplanned non-OPEC Production Outages	**0.61**	**0.50**	**0.80**	**0.77**	-	-	-	-	-	-	-	-	**0.67**	-	-

- = no data available

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Congo (Brazzaville), Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, the United Arab Emirates, Venezuela.

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Supply includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

Not all countries are shown in each region and sum of reported country volumes may not equal regional volumes.

Historical data: Latest data available from Energy Information Administration international energy statistics.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 3c. OPEC Crude Oil (excluding condensates) Production (million barrels per day)

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Crude Oil															
Algeria	**0.87**	**0.88**	**0.92**	**0.94**	-	-	-	-	-	-	-	-	**0.90**	-	-
Angola	**1.11**	**1.08**	**1.11**	**1.13**	-	-	-	-	-	-	-	-	**1.11**	-	-
Congo (Brazzaville)	**0.28**	**0.27**	**0.26**	**0.26**	-	-	-	-	-	-	-	-	**0.26**	-	-
Equatorial Guinea	**0.11**	**0.10**	**0.10**	**0.09**	-	-	-	-	-	-	-	-	**0.10**	-	-
Gabon	**0.16**	**0.17**	**0.18**	**0.19**	-	-	-	-	-	-	-	-	**0.18**	-	-
Iran	**2.18**	**2.47**	**2.47**	**2.45**	-	-	-	-	-	-	-	-	**2.39**	-	-
Iraq	**3.94**	**3.98**	**4.07**	**4.25**	-	-	-	-	-	-	-	-	**4.06**	-	-
Kuwait	**2.33**	**2.36**	**2.45**	**2.53**	-	-	-	-	-	-	-	-	**2.42**	-	-
Libya	**1.18**	**1.16**	**1.18**	**1.12**	-	-	-	-	-	-	-	-	**1.16**	-	-
Nigeria	**1.31**	**1.32**	**1.28**	**1.31**	-	-	-	-	-	-	-	-	**1.30**	-	-
Saudi Arabia	**8.49**	**8.53**	**9.55**	**9.87**	-	-	-	-	-	-	-	-	**9.11**	-	-
United Arab Emirates	**2.61**	**2.65**	**2.76**	**2.86**	-	-	-	-	-	-	-	-	**2.72**	-	-
Venezuela	**0.52**	**0.53**	**0.53**	**0.68**	-	-	-	-	-	-	-	-	**0.56**	-	-
OPEC Total	**25.08**	**25.49**	**26.84**	**27.66**	*28.17*	*28.51*	*28.89*	*28.99*	*29.09*	*29.07*	*29.01*	*28.96*	**26.28**	*28.64*	*29.03*
Other Liquids (a)	**5.16**	**5.26**	**5.31**	**5.41**	*5.58*	*5.46*	*5.50*	*5.54*	*5.56*	*5.44*	*5.49*	*5.52*	**5.29**	*5.52*	*5.50*
Total OPEC Production	**30.24**	**30.75**	**32.15**	**33.07**	*33.75*	*33.96*	*34.40*	*34.53*	*34.65*	*34.51*	*34.50*	*34.49*	**31.56**	*34.16*	*34.53*
Crude Oil Production Capacity															
Middle East	**25.51**	**25.80**	**25.80**	**25.78**	*25.92*	*26.02*	*26.02*	*26.12*	*26.32*	*26.32*	*26.32*	*26.32*	**25.72**	*26.02*	*26.32*
Other	**6.18**	**6.19**	**6.16**	**6.25**	*6.32*	*6.46*	*6.42*	*6.41*	*6.42*	*6.42*	*6.39*	*6.36*	**6.19**	*6.40*	*6.40*
OPEC Total	**31.69**	**31.98**	**31.95**	**32.03**	*32.24*	*32.48*	*32.44*	*32.53*	*32.74*	*32.74*	*32.71*	*32.68*	**31.91**	*32.42*	*32.72*
Surplus Crude Oil Production Capacity															
Middle East	**5.96**	**5.82**	**4.51**	**3.83**	*3.70*	*3.73*	*3.35*	*3.35*	*3.45*	*3.45*	*3.45*	*3.45*	**5.02**	*3.53*	*3.45*
Other	**0.65**	**0.68**	**0.60**	**0.54**	*0.37*	*0.24*	*0.20*	*0.19*	*0.20*	*0.23*	*0.25*	*0.27*	**0.62**	*0.25*	*0.23*
OPEC Total	**6.61**	**6.49**	**5.11**	**4.37**	*4.07*	*3.97*	*3.55*	*3.54*	*3.65*	*3.68*	*3.70*	*3.72*	**5.64**	*3.78*	*3.68*
Unplanned OPEC Production Outages	**2.49**	**2.12**	**2.15**	**2.03**	-	-	-	-	-	-	-	-	**2.20**	-	-

(a) Includes lease condensate, natural gas plant liquids, other liquids, refinery processing gain, and other unaccounted-for liquids.

OPEC = Organization of the Petroleum Exporting Countries: Iran, Iraq, Kuwait, Saudi Arabia, and the United Arab Emirates (Middle East); Algeria, Angola, Congo (Brazzaville), Equatorial Guinea, Gabon, Libya, Nigeria, and Venezuela (Other).

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Forecasts are not published for individual OPEC countries.

Historical data: Latest data available from Energy Information Administration international energy statistics.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 3d. World Petroleum and Other Liquids Consumption (million barrels per day)

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
North America	**22.20**	**23.83**	**24.19**	**24.44**	*24.18*	*24.50*	*24.88*	*25.02*	*24.44*	*24.96*	*25.20*	*25.27*	**23.67**	*24.65*	*24.97*
Canada	**2.12**	**2.16**	**2.41**	**2.37**	*2.31*	*2.29*	*2.41*	*2.38*	*2.38*	*2.33*	*2.43*	*2.41*	**2.27**	*2.35*	*2.39*
Mexico	**1.62**	**1.63**	**1.56**	**1.67**	*1.63*	*1.65*	*1.63*	*1.64*	*1.60*	*1.63*	*1.62*	*1.64*	**1.62**	*1.64*	*1.62*
United States	**18.45**	**20.03**	**20.21**	**20.39**	*20.23*	*20.56*	*20.83*	*20.98*	*20.45*	*21.00*	*21.13*	*21.21*	**19.78**	*20.66*	*20.95*
Central and South America	**5.99**	**6.13**	**6.35**	**6.48**	*6.26*	*6.35*	*6.46*	*6.47*	*6.33*	*6.47*	*6.57*	*6.51*	**6.24**	*6.39*	*6.47*
Brazil	**2.78**	**2.89**	**3.01**	**3.11**	*2.90*	*2.91*	*2.99*	*2.99*	*2.91*	*2.97*	*3.04*	*3.02*	**2.95**	*2.95*	*2.98*
Europe	**12.65**	**13.36**	**14.57**	**14.30**	*13.96*	*14.10*	*14.45*	*14.12*	*13.95*	*14.13*	*14.53*	*14.30*	**13.73**	*14.16*	*14.23*
Eurasia	**4.65**	**4.72**	**5.08**	**4.94**	*4.84*	*4.90*	*5.26*	*5.13*	*4.83*	*5.00*	*5.33*	*5.24*	**4.85**	*5.03*	*5.10*
Russia	**3.41**	**3.52**	**3.81**	**3.65**	*3.55*	*3.64*	*3.93*	*3.79*	*3.59*	*3.68*	*3.98*	*3.83*	**3.60**	*3.73*	*3.77*
Middle East	**7.83**	**8.23**	**8.75**	**8.53**	*8.63*	*8.59*	*9.04*	*8.50*	*8.77*	*8.77*	*9.24*	*8.72*	**8.34**	*8.69*	*8.88*
Asia and Oceania	**36.42**	**35.53**	**34.97**	**36.55**	*37.36*	*37.07*	*36.56*	*37.69*	*39.28*	*38.36*	*37.24*	*37.94*	**35.87**	*37.17*	*38.20*
China	**15.26**	**15.46**	**14.98**	**15.32**	*15.52*	*15.92*	*15.65*	*15.89*	*16.65*	*16.54*	*15.91*	*15.83*	**15.25**	*15.74*	*16.23*
Japan	**3.73**	**3.08**	**3.18**	**3.47**	*3.73*	*3.08*	*3.19*	*3.52*	*3.65*	*3.05*	*3.15*	*3.47*	**3.37**	*3.38*	*3.33*
India	**4.94**	**4.37**	**4.41**	**4.89**	*5.06*	*5.14*	*4.80*	*5.10*	*5.33*	*5.40*	*5.03*	*5.36*	**4.65**	*5.02*	*5.28*
Africa	**4.36**	**4.38**	**4.28**	**4.47**	*4.47*	*4.52*	*4.45*	*4.64*	*4.61*	*4.63*	*4.54*	*4.71*	**4.37**	*4.52*	*4.62*
Total OECD Liquid Fuels Consumption	**42.30**	**43.98**	**45.68**	**46.01**	*45.82*	*45.45*	*46.33*	*46.62*	*46.03*	*45.90*	*46.67*	*46.97*	**44.51**	*46.06*	*46.40*
Total non-OECD Liquid Fuels Consumption	**51.79**	**52.21**	**52.52**	**53.69**	*53.88*	*54.60*	*54.77*	*54.94*	*56.19*	*56.40*	*56.00*	*55.73*	**52.56**	*54.55*	*56.08*
Total World Liquid Fuels Consumption	**94.09**	**96.19**	**98.20**	**99.70**	*99.70*	*100.04*	*101.10*	*101.56*	*102.23*	*102.30*	*102.67*	*102.70*	**97.07**	*100.61*	*102.48*
Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	**116.4**	**117.3**	**118.7**	**120.2**	*121.1*	*122.7*	*124.1*	*125.3*	*126.4*	*127.7*	*128.8*	*129.9*	**118.1**	*123.3*	*128.2*
Percent change from prior year	**3.3**	**11.5**	**4.8**	**4.1**	*4.1*	*4.5*	*4.6*	*4.2*	*4.4*	*4.1*	*3.8*	*3.7*	**5.8**	*4.4*	*4.0*
OECD Index, 2015 = 100													**109.2**	*113.3*	*116.2*
Percent change from prior year													**5.2**	*3.7*	*2.6*
Non-OECD Index, 2015 = 100													**123.4**	*129.3*	*135.8*
Percent change from prior year													**6.2**	*4.8*	*5.0*
Nominal U.S. Dollar Index (b)															
Index, 2015 Q1 = 100	**106.5**	**106.1**	**107.5**	**109.1**	*109.7*	*109.9*	*109.5*	*109.0*	*108.7*	*108.4*	*108.1*	*107.8*	**107.3**	*109.6*	*108.3*
Percent change from prior year	**-4.6**	**-8.2**	**-3.4**	**0.9**	*3.0*	*3.6*	*1.9*	*0.0*	*-1.0*	*-1.4*	*-1.3*	*-1.1*	**-3.9**	*2.1*	*-1.2*

(a) GDP values for the individual countries in the indexes are converted to U.S. dollars at purchasing power parity and then summed to create values for the world, OECD, and non-OECD. Historical and forecast data are from Oxford Economics, and quarterly values are reindexed to 2015 Q1 by EIA.

(b) Data source is the Board of Governors of the U.S. Federal Reserve System Nominal Broad Trade-Weighted Dollar Index. An increase in the index indicates an appreciation of the U.S. dollar against a basket of currencies and a decrease in the index indicates a depreciation of the U.S. dollar against a basket of currencies. Historical and forecast data are from Oxford Economics, and quarterly values are reindexed to 2015 Q1 by EIA.

- = no data available

OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration international energy statistics.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 4a. U.S. Petroleum and Other Liquids Supply, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	**10.69**	**11.28**	**11.13**	**11.69**	*11.67*	*11.86*	*12.06*	*12.27*	*12.46*	*12.54*	*12.63*	*12.75*	**11.20**	*11.97*	*12.60*
Alaska	**0.46**	**0.44**	**0.41**	**0.44**	*0.42*	*0.36*	*0.38*	*0.40*	*0.41*	*0.36*	*0.39*	*0.41*	**0.44**	*0.39*	*0.39*
Federal Gulf of Mexico (b)	**1.80**	**1.79**	**1.49**	**1.80**	*1.84*	*1.83*	*1.79*	*1.81*	*1.88*	*1.87*	*1.79*	*1.79*	**1.72**	*1.82*	*1.83*
Lower 48 States (excl GOM)	**8.44**	**9.05**	**9.24**	**9.46**	*9.41*	*9.67*	*9.89*	*10.06*	*10.17*	*10.31*	*10.45*	*10.55*	**9.05**	*9.76*	*10.37*
Crude Oil Net Imports (c)	**2.87**	**2.96**	**3.60**	**3.23**	*3.63*	*4.21*	*4.35*	*3.40*	*2.71*	*4.00*	*4.19*	*2.80*	**3.17**	*3.90*	*3.43*
SPR Net Withdrawals	**0.00**	**0.18**	**0.04**	**0.26**	*0.27*	*0.10*	*0.00*	*0.08*	*0.09*	*0.09*	*-0.04*	*0.11*	**0.12**	*0.11*	*0.06*
Commercial Inventory Net Withdrawals	**-0.18**	**0.59**	**0.30**	**0.03**	*-0.30*	*-0.09*	*0.22*	*-0.05*	*-0.35*	*-0.09*	*0.07*	*0.07*	**0.19**	*-0.05*	*-0.07*
Crude Oil Adjustment (d)	**0.42**	**0.63**	**0.54**	**0.29**	*-0.01*	*0.22*	*0.23*	*0.16*	*0.22*	*0.22*	*0.23*	*0.16*	**0.47**	*0.15*	*0.21*
Total Crude Oil Input to Refineries	**13.81**	**15.65**	**15.60**	**15.51**	*15.25*	*16.29*	*16.85*	*15.88*	*15.12*	*16.75*	*17.08*	*15.90*	**15.15**	*16.07*	*16.22*
Other Supply															
Refinery Processing Gain	**0.84**	**0.97**	**0.97**	**1.04**	*1.08*	*1.04*	*1.07*	*1.08*	*1.03*	*1.01*	*1.02*	*1.01*	**0.96**	*1.07*	*1.02*
Natural Gas Plant Liquids Production	**4.86**	**5.46**	**5.52**	**5.70**	*5.69*	*5.84*	*5.94*	*6.02*	*6.06*	*6.17*	*6.17*	*6.19*	**5.39**	*5.87*	*6.15*
Renewables and Oxygenate Production (e)	**1.03**	**1.13**	**1.10**	**1.23**	*1.17*	*1.19*	*1.21*	*1.25*	*1.18*	*1.22*	*1.22*	*1.27*	**1.12**	*1.21*	*1.22*
Fuel Ethanol Production	**0.90**	**0.99**	**0.96**	**1.06**	*1.00*	*1.02*	*1.03*	*1.05*	*1.00*	*1.03*	*1.02*	*1.05*	**0.98**	*1.03*	*1.02*
Petroleum Products Adjustment (f)	**0.19**	**0.22**	**0.22**	**0.22**	*0.21*	*0.22*	*0.22*	*0.22*	*0.21*	*0.22*	*0.22*	*0.22*	**0.21**	*0.22*	*0.22*
Product Net Imports (c)	**-2.94**	**-3.13**	**-3.24**	**-3.86**	*-3.44*	*-3.33*	*-4.10*	*-3.77*	*-3.50*	*-3.84*	*-4.29*	*-3.78*	**-3.29**	*-3.66*	*-3.85*
Hydrocarbon Gas Liquids	**-2.02**	**-2.23**	**-2.16**	**-2.26**	*-2.25*	*-2.24*	*-2.29*	*-2.28*	*-2.43*	*-2.47*	*-2.54*	*-2.46*	**-2.17**	*-2.27*	*-2.47*
Unfinished Oils	**0.14**	**0.25**	**0.22**	**0.13**	*0.26*	*0.28*	*0.30*	*0.20*	*0.19*	*0.22*	*0.29*	*0.20*	**0.19**	*0.26*	*0.23*
Other HC/Oxygenates	**-0.08**	**-0.04**	**-0.03**	**-0.06**	*-0.06*	*-0.05*	*-0.07*	*-0.06*	*-0.06*	*-0.05*	*-0.05*	*-0.04*	**-0.05**	*-0.06*	*-0.05*
Motor Gasoline Blend Comp.	**0.55**	**0.79**	**0.66**	**0.38**	*0.33*	*0.71*	*0.39*	*0.21*	*0.39*	*0.60*	*0.38*	*0.41*	**0.60**	*0.41*	*0.44*
Finished Motor Gasoline	**-0.66**	**-0.66**	**-0.68**	**-0.81**	*-0.60*	*-0.55*	*-0.62*	*-0.52*	*-0.64*	*-0.57*	*-0.60*	*-0.69*	**-0.70**	*-0.58*	*-0.63*
Jet Fuel	**0.03**	**0.09**	**0.09**	**-0.01**	*0.01*	*0.01*	*-0.01*	*0.01*	*-0.01*	*0.03*	*0.05*	*0.09*	**0.05**	*0.00*	*0.04*
Distillate Fuel Oil	**-0.49**	**-0.90**	**-0.94**	**-0.86**	*-0.59*	*-1.00*	*-1.19*	*-0.93*	*-0.56*	*-1.06*	*-1.20*	*-0.92*	**-0.80**	*-0.93*	*-0.94*
Residual Fuel Oil	**0.08**	**0.05**	**0.08**	**0.14**	*0.08*	*0.08*	*0.03*	*0.10*	*0.01*	*0.03*	*-0.01*	*0.10*	**0.09**	*0.07*	*0.03*
Other Oils (g)	**-0.49**	**-0.49**	**-0.50**	**-0.52**	*-0.60*	*-0.55*	*-0.63*	*-0.51*	*-0.38*	*-0.57*	*-0.60*	*-0.47*	**-0.50**	*-0.57*	*-0.51*
Product Inventory Net Withdrawals	**0.65**	**-0.26**	**0.03**	**0.54**	*0.28*	*-0.69*	*-0.37*	*0.31*	*0.35*	*-0.53*	*-0.29*	*0.40*	**0.24**	*-0.12*	*-0.02*
Total Supply	**18.43**	**20.03**	**20.21**	**20.39**	*20.23*	*20.56*	*20.83*	*20.98*	*20.45*	*21.00*	*21.13*	*21.21*	**19.77**	*20.66*	*20.95*
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	**3.40**	**3.33**	**3.31**	**3.54**	*3.88*	*3.38*	*3.39*	*3.85*	*3.99*	*3.54*	*3.47*	*3.88*	**3.39**	*3.62*	*3.72*
Other HC/Oxygenates	**0.11**	**0.13**	**0.11**	**0.16**	*0.17*	*0.16*	*0.15*	*0.21*	*0.19*	*0.19*	*0.18*	*0.24*	**0.13**	*0.17*	*0.20*
Unfinished Oils	**0.05**	**0.03**	**-0.05**	**0.02**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*-0.03*	*-0.01*	*0.01*	**0.01**	*0.00*	*-0.01*
Motor Gasoline	**8.00**	**9.07**	**9.13**	**8.94**	*8.41*	*9.15*	*9.23*	*8.98*	*8.47*	*9.23*	*9.27*	*9.02*	**8.79**	*8.95*	*9.00*
Fuel Ethanol blended into Motor Gasoline	**0.82**	**0.93**	**0.94**	**0.95**	*0.85*	*0.94*	*0.94*	*0.94*	*0.87*	*0.95*	*0.95*	*0.95*	**0.91**	*0.92*	*0.93*
Jet Fuel	**1.13**	**1.34**	**1.52**	**1.48**	*1.45*	*1.55*	*1.64*	*1.62*	*1.51*	*1.66*	*1.72*	*1.68*	**1.37**	*1.57*	*1.64*
Distillate Fuel Oil	**3.97**	**3.93**	**3.87**	**4.05**	*4.23*	*4.02*	*3.97*	*4.09*	*4.23*	*4.09*	*4.04*	*4.12*	**3.96**	*4.08*	*4.12*
Residual Fuel Oil	**0.26**	**0.25**	**0.33**	**0.39**	*0.33*	*0.28*	*0.31*	*0.31*	*0.27*	*0.28*	*0.29*	*0.31*	**0.31**	*0.31*	*0.29*
Other Oils (g)	**1.53**	**1.95**	**1.98**	**1.81**	*1.78*	*2.01*	*2.13*	*1.92*	*1.80*	*2.05*	*2.17*	*1.94*	**1.82**	*1.96*	*1.99*
Total Consumption	**18.45**	**20.03**	**20.21**	**20.39**	*20.23*	*20.56*	*20.83*	*20.98*	*20.45*	*21.00*	*21.13*	*21.21*	**19.78**	*20.66*	*20.95*
Total Petroleum and Other Liquids Net Imports	**-0.07**	**-0.16**	**0.35**	**-0.62**	*0.19*	*0.89*	*0.25*	*-0.37*	*-0.79*	*0.16*	*-0.10*	*-0.98*	**-0.13**	*0.24*	*-0.43*
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	**501.9**	**448.0**	**420.4**	**417.2**	*444.3*	*452.8*	*432.2*	*436.6*	*468.2*	*476.2*	*470.1*	*463.7*	**417.2**	*436.6*	*463.7*
Hydrocarbon Gas Liquids	**168.6**	**195.8**	**225.6**	**185.8**	*138.7*	*191.6*	*239.0*	*199.8*	*160.5*	*208.3*	*245.6*	*201.9*	**185.8**	*199.8*	*201.9*
Unfinished Oils	**93.3**	**93.0**	**90.2**	**82.8**	*91.4*	*90.6*	*89.9*	*83.0*	*92.7*	*90.6*	*89.8*	*82.6*	**82.8**	*83.0*	*82.6*
Other HC/Oxygenates	**29.1**	**27.5**	**25.4**	**27.5**	*32.1*	*30.9*	*30.6*	*30.9*	*32.9*	*31.7*	*31.4*	*31.7*	**27.5**	*30.9*	*31.7*
Total Motor Gasoline	**237.6**	**237.2**	**227.0**	**233.9**	*243.1*	*246.8*	*234.0*	*249.1*	*248.2*	*247.5*	*238.8*	*250.6*	**233.9**	*249.1*	*250.6*
Finished Motor Gasoline	**20.3**	**18.6**	**18.5**	**17.3**	*18.3*	*21.7*	*23.5*	*26.9*	*23.5*	*24.4*	*25.5*	*27.9*	**17.3**	*26.9*	*27.9*
Motor Gasoline Blend Comp.	**217.4**	**218.6**	**208.5**	**216.6**	*224.9*	*225.2*	*210.5*	*222.3*	*224.8*	*223.0*	*213.3*	*222.7*	**216.6**	*222.3*	*222.7*
Jet Fuel	**39.0**	**44.7**	**42.0**	**34.9**	*37.0*	*38.4*	*41.3*	*38.4*	*38.0*	*39.0*	*41.6*	*38.5*	**34.9**	*38.4*	*38.5*
Distillate Fuel Oil	**145.5**	**140.1**	**131.7**	**127.2**	*114.8*	*121.0*	*128.9*	*130.6*	*119.3*	*124.4*	*131.3*	*133.2*	**127.2**	*130.6*	*133.2*
Residual Fuel Oil	**30.9**	**31.1**	**28.0**	**26.0**	*27.2*	*29.8*	*29.0*	*30.6*	*30.3*	*31.1*	*29.7*	*31.1*	**26.0**	*30.6*	*31.1*
Other Oils (g)	**55.8**	**54.1**	**50.5**	**52.3**	*61.3*	*59.1*	*49.9*	*51.3*	*60.5*	*58.4*	*49.2*	*50.5*	**52.3**	*51.3*	*50.5*
Total Commercial Inventory	**1301.7**	**1271.5**	**1240.7**	**1187.7**	*1190.0*	*1261.1*	*1274.6*	*1250.4*	*1250.6*	*1307.1*	*1327.4*	*1284.0*	**1187.7**	*1250.4*	*1284.0*
Crude Oil in SPR	**637.8**	**621.3**	**617.8**	**593.6**	*569.3*	*560.6*	*560.6*	*552.8*	*545.0*	*537.2*	*540.6*	*530.1*	**593.6**	*552.8*	*530.1*

(a) Includes lease condensate.

(b) Crude oil production from U.S. Federal leases in the Gulf of Mexico (GOM).

(c) Net imports equals gross imports minus gross exports.

(d) Crude oil adjustment balances supply and consumption and was previously referred to as "Unaccounted for Crude Oil."

(e) Renewables and oxygenate production includes pentanes plus, oxygenates (excluding fuel ethanol), and renewable fuels. Beginning in January 2021, renewable fuels includes biodiesel, renewable diesel, renewable jet fuel, renewable heating oil, renewable naphtha and gasoline, and other renewable fuels. For December 2020 and prior, renewable fuels includes only biodiesel.

(f) Petroleum products adjustment includes hydrogen/oxygenates/renewables/other hydrocarbons, motor gasoline blend components, and finished motor gasoline.

(g) "Other Oils" includes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

- = no data available

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly* , DOE/EIA-0109; *Petroleum Supply Annual* , DOE/EIA-0340/2; and *Weekly Petroleum Status Report* , DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 4b. U.S. Hydrocarbon Gas Liquids (HGL) and Petroleum Refinery Balances (million barrels per day, except inventories and utilization factor)

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
HGL Production															
Natural Gas Processing Plants															
Ethane	**1.87**	**2.19**	**2.18**	**2.28**	*2.32*	*2.46*	*2.51*	*2.58*	*2.61*	*2.66*	*2.59*	*2.64*	**2.13**	*2.47*	*2.62*
Propane	**1.62**	**1.74**	**1.75**	**1.82**	*1.81*	*1.79*	*1.81*	*1.83*	*1.85*	*1.87*	*1.89*	*1.90*	**1.74**	*1.81*	*1.88*
Butanes	**0.85**	**0.92**	**0.93**	**0.96**	*0.96*	*0.96*	*0.97*	*0.98*	*1.00*	*1.00*	*1.02*	*1.02*	**0.92**	*0.97*	*1.01*
Natural Gasoline (Pentanes Plus)	**0.53**	**0.61**	**0.65**	**0.64**	*0.60*	*0.62*	*0.65*	*0.62*	*0.60*	*0.64*	*0.67*	*0.64*	**0.61**	*0.62*	*0.64*
Refinery and Blender Net Production															
Ethane/Ethylene	**0.00**	**0.00**	**0.00**	**0.01**	*0.00*	*0.01*	*0.01*	*0.01*	*0.00*	*0.01*	*0.01*	*0.01*	**0.00**	*0.01*	*0.01*
Propane	**0.25**	**0.29**	**0.28**	**0.29**	*0.30*	*0.29*	*0.30*	*0.30*	*0.29*	*0.29*	*0.30*	*0.30*	**0.28**	*0.30*	*0.29*
Propylene (refinery-grade)	**0.27**	**0.31**	**0.29**	**0.29**	*0.27*	*0.28*	*0.28*	*0.28*	*0.27*	*0.29*	*0.28*	*0.28*	**0.29**	*0.28*	*0.28*
Butanes/Butylenes	**-0.09**	**0.24**	**0.18**	**-0.19**	*-0.07*	*0.27*	*0.19*	*-0.19*	*-0.08*	*0.26*	*0.19*	*-0.19*	**0.04**	*0.05*	*0.05*
Renewable Fuels and Oxygenate Plant Net Production															
Natural Gasoline (Pentanes Plus)	**-0.02**	**-0.02**	**-0.02**	**-0.02**	*-0.02*	*-0.02*	*-0.02*	*-0.02*	*-0.02*	*-0.02*	*-0.02*	*-0.02*	**-0.02**	*-0.02*	*-0.02*
HGL Net Imports															
Ethane	**-0.35**	**-0.39**	**-0.41**	**-0.49**	*-0.43*	*-0.44*	*-0.45*	*-0.46*	*-0.47*	*-0.46*	*-0.46*	*-0.47*	**-0.41**	*-0.45*	*-0.46*
Propane/Propylene	**-1.11**	**-1.23**	**-1.19**	**-1.21**	*-1.18*	*-1.14*	*-1.19*	*-1.23*	*-1.27*	*-1.31*	*-1.38*	*-1.37*	**-1.18**	*-1.18*	*-1.33*
Butanes/Butylenes	**-0.35**	**-0.40**	**-0.38**	**-0.37**	*-0.43*	*-0.46*	*-0.46*	*-0.41*	*-0.47*	*-0.49*	*-0.49*	*-0.43*	**-0.38**	*-0.44*	*-0.47*
Natural Gasoline (Pentanes Plus)	**-0.22**	**-0.21**	**-0.18**	**-0.18**	*-0.22*	*-0.20*	*-0.20*	*-0.18*	*-0.22*	*-0.21*	*-0.21*	*-0.19*	**-0.20**	*-0.20*	*-0.21*
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	**0.39**	**0.29**	**0.31**	**0.51**	*0.40*	*0.28*	*0.32*	*0.50*	*0.38*	*0.28*	*0.32*	*0.51*	**0.38**	*0.37*	*0.37*
Natural Gasoline (Pentanes Plus)	**0.14**	**0.14**	**0.16**	**0.21**	*0.17*	*0.18*	*0.19*	*0.19*	*0.18*	*0.18*	*0.19*	*0.18*	**0.16**	*0.18*	*0.18*
HGL Consumption															
Ethane/Ethylene	**1.54**	**1.83**	**1.80**	**1.85**	*1.97*	*2.01*	*2.06*	*2.10*	*2.15*	*2.15*	*2.14*	*2.17*	**1.76**	*2.04*	*2.15*
Propane	**1.09**	**0.65**	**0.66**	**0.95**	*1.19*	*0.64*	*0.61*	*1.01*	*1.15*	*0.64*	*0.59*	*0.97*	**0.84**	*0.86*	*0.84*
Propylene (refinery-grade)	**0.29**	**0.32**	**0.30**	**0.30**	*0.29*	*0.30*	*0.29*	*0.30*	*0.30*	*0.30*	*0.30*	*0.29*	**0.30**	*0.30*	*0.30*
Butanes/Butylenes	**0.22**	**0.29**	**0.25**	**0.21**	*0.20*	*0.22*	*0.20*	*0.20*	*0.18*	*0.22*	*0.20*	*0.20*	**0.24**	*0.21*	*0.20*
Natural Gasoline (Pentanes Plus)	**0.26**	**0.24**	**0.30**	**0.23**	*0.21*	*0.21*	*0.23*	*0.24*	*0.21*	*0.22*	*0.24*	*0.25*	**0.26**	*0.22*	*0.23*
HGL Inventories (million barrels)															
Ethane	**65.8**	**67.4**	**64.6**	**63.6**	*53.2*	*53.1*	*52.9*	*56.1*	*54.8*	*59.5*	*59.3*	*61.6*	**65.4**	*53.8*	*58.8*
Propane	**39.3**	**53.2**	**68.6**	**63.8**	*38.6*	*64.8*	*92.7*	*81.3*	*54.4*	*72.0*	*90.6*	*76.0*	**63.8**	*81.3*	*76.0*
Propylene (at refineries only)	**1.1**	**1.2**	**1.3**	**1.4**	*1.4*	*1.7*	*1.9*	*1.8*	*1.6*	*1.8*	*2.0*	*1.9*	**1.4**	*1.8*	*1.9*
Butanes/Butylenes	**37.2**	**53.9**	**69.4**	**40.4**	*27.2*	*51.6*	*69.5*	*40.5*	*30.7*	*55.1*	*73.0*	*43.8*	**40.4**	*40.5*	*43.8*
Natural Gasoline (Pentanes Plus)	**22.8**	**22.3**	**22.3**	**21.3**	*19.3*	*20.4*	*21.2*	*20.4*	*18.0*	*19.2*	*20.0*	*19.3*	**21.3**	*20.4*	*19.3*
Refinery and Blender Net Inputs															
Crude Oil	**13.81**	**15.65**	**15.60**	**15.51**	*15.25*	*16.29*	*16.85*	*15.88*	*15.12*	*16.75*	*17.08*	*15.90*	**15.15**	*16.07*	*16.22*
Hydrocarbon Gas Liquids	**0.53**	**0.43**	**0.47**	**0.72**	*0.57*	*0.46*	*0.51*	*0.68*	*0.55*	*0.47*	*0.51*	*0.69*	**0.54**	*0.55*	*0.55*
Other Hydrocarbons/Oxygenates	**1.05**	**1.19**	**1.20**	**1.16**	*1.10*	*1.19*	*1.20*	*1.17*	*1.10*	*1.20*	*1.20*	*1.18*	**1.15**	*1.16*	*1.17*
Unfinished Oils	**-0.08**	**0.22**	**0.31**	**0.19**	*0.16*	*0.28*	*0.31*	*0.27*	*0.08*	*0.28*	*0.31*	*0.27*	**0.16**	*0.26*	*0.24*
Motor Gasoline Blend Components	**0.71**	**0.92**	**0.81**	**0.24**	*0.32*	*0.81*	*0.65*	*0.30*	*0.48*	*0.72*	*0.59*	*0.53*	**0.67**	*0.52*	*0.58*
Aviation Gasoline Blend Components	**0.00**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	**0.00**	*0.00*	*0.00*
Total Refinery and Blender Net Inputs	**16.01**	**18.41**	**18.39**	**17.82**	*17.40*	*19.03*	*19.52*	*18.30*	*17.34*	*19.41*	*19.68*	*18.57*	**17.67**	*18.57*	*18.76*
Refinery Processing Gain	**0.84**	**0.97**	**0.97**	**1.04**	*1.08*	*1.04*	*1.07*	*1.08*	*1.03*	*1.01*	*1.02*	*1.01*	**0.96**	*1.07*	*1.02*
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	**0.44**	**0.85**	**0.76**	**0.40**	*0.50*	*0.85*	*0.78*	*0.39*	*0.49*	*0.85*	*0.78*	*0.39*	**0.61**	*0.63*	*0.63*
Finished Motor Gasoline	**8.74**	**9.82**	**9.83**	**9.61**	*9.09*	*9.81*	*9.94*	*9.71*	*9.16*	*9.87*	*9.94*	*9.91*	**9.50**	*9.64*	*9.72*
Jet Fuel	**1.10**	**1.32**	**1.41**	**1.42**	*1.47*	*1.56*	*1.69*	*1.58*	*1.51*	*1.65*	*1.70*	*1.56*	**1.31**	*1.57*	*1.60*
Distillate Fuel	**4.29**	**4.77**	**4.72**	**4.85**	*4.68*	*5.09*	*5.25*	*5.03*	*4.67*	*5.20*	*5.31*	*5.06*	**4.66**	*5.01*	*5.06*
Residual Fuel	**0.19**	**0.20**	**0.21**	**0.23**	*0.26*	*0.23*	*0.28*	*0.22*	*0.25*	*0.26*	*0.29*	*0.23*	**0.21**	*0.25*	*0.26*
Other Oils (a)	**2.09**	**2.42**	**2.44**	**2.35**	*2.48*	*2.54*	*2.66*	*2.45*	*2.28*	*2.60*	*2.67*	*2.43*	**2.33**	*2.53*	*2.50*
Total Refinery and Blender Net Production	**16.86**	**19.38**	**19.36**	**18.86**	*18.48*	*20.08*	*20.59*	*19.39*	*18.36*	*20.42*	*20.71*	*19.57*	**18.62**	*19.64*	*19.77*
Refinery Distillation Inputs	**14.25**	**16.17**	**16.22**	**16.01**	*15.61*	*16.52*	*17.09*	*16.18*	*15.48*	*16.92*	*17.29*	*16.20*	**15.67**	*16.35*	*16.48*
Refinery Operable Distillation Capacity	**18.11**	**18.13**	**18.13**	**18.13**	*18.13*	*18.13*	*18.13*	*18.13*	*18.13*	*18.13*	*18.13*	*18.13*	**18.12**	*18.13*	*18.13*
Refinery Distillation Utilization Factor	**0.79**	**0.89**	**0.89**	**0.88**	*0.86*	*0.91*	*0.94*	*0.89*	*0.85*	*0.93*	*0.95*	*0.89*	**0.86**	*0.90*	*0.91*

(a) "Other Oils" includes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly* , DOE/EIA-0109; *Petroleum Supply Annual* , DOE/EIA-0340/2; *Weekly Petroleum Status Report* , DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 4c. U.S. Regional Motor Gasoline Prices and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Prices (cents per gallon)															
Refiner Wholesale Price	**180**	**216**	**232**	**242**	*255*	*254*	*239*	*210*	*205*	*209*	*204*	*188*	**219**	*240*	*201*
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	**252**	**287**	**304**	**327**	*331*	*327*	*317*	*292*	*279*	*283*	*277*	*266*	**294**	*317*	*276*
PADD 2	**247**	**288**	**304**	**315**	*314*	*323*	*304*	*279*	*274*	*280*	*275*	*256*	**290**	*305*	*271*
PADD 3	**228**	**267**	**282**	**298**	*305*	*307*	*288*	*260*	*250*	*255*	*249*	*233*	**271**	*290*	*247*
PADD 4	**247**	**311**	**360**	**351**	*340*	*342*	*331*	*300*	*283*	*296*	*292*	*273*	**319**	*328*	*286*
PADD 5	**312**	**366**	**391**	**410**	*421*	*419*	*393*	*383*	*363*	*364*	*356*	*336*	**372**	*403*	*355*
U.S. Average	**256**	**297**	**316**	**333**	*337*	*339*	*322*	*299*	*287*	*292*	*286*	*270*	**302**	*324*	*284*
Gasoline All Grades Including Taxes	**265**	**306**	**325**	**343**	*348*	*351*	*335*	*312*	*301*	*306*	*300*	*284*	**311**	*336*	*298*
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	**65.1**	**69.9**	**59.0**	**63.3**	*65.8*	*68.3*	*63.1*	*68.8*	*68.1*	*68.8*	*63.4*	*68.7*	**63.3**	*68.8*	*68.7*
PADD 2	**50.7**	**50.6**	**46.9**	**51.4**	*54.6*	*52.5*	*50.2*	*50.6*	*52.9*	*51.5*	*51.1*	*50.0*	**51.4**	*50.6*	*50.0*
PADD 3	**81.9**	**81.6**	**82.9**	**82.0**	*84.7*	*88.8*	*83.7*	*90.1*	*89.3*	*90.0*	*87.5*	*91.1*	**82.0**	*90.1*	*91.1*
PADD 4	**8.6**	**6.2**	**7.6**	**8.1**	*8.2*	*7.9*	*7.5*	*8.2*	*8.0*	*8.1*	*7.7*	*8.4*	**8.1**	*8.2*	*8.4*
PADD 5	**31.4**	**29.0**	**30.6**	**29.1**	*29.8*	*29.4*	*29.4*	*31.6*	*29.9*	*29.0*	*29.2*	*32.5*	**29.1**	*31.6*	*32.5*
U.S. Total	**237.6**	**237.2**	**227.0**	**233.9**	*243.1*	*246.8*	*234.0*	*249.1*	*248.2*	*247.5*	*238.8*	*250.6*	**233.9**	*249.1*	*250.6*
Finished Gasoline Inventories															
U.S. Total	**20.3**	**18.6**	**18.5**	**17.3**	*18.3*	*21.7*	*23.5*	*26.9*	*23.5*	*24.4*	*25.5*	*27.9*	**17.3**	*26.9*	*27.9*
Gasoline Blending Components Inventories															
U.S. Total	**217.4**	**218.6**	**208.5**	**216.6**	*224.9*	*225.2*	*210.5*	*222.3*	*224.8*	*223.0*	*213.3*	*222.7*	**216.6**	*222.3*	*222.7*

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Prices are not adjusted for inflation.

Regions refer to Petroleum Administration for Defense Districts (PADD).

See "Petroleum for Administration Defense District" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly* , DOE/EIA-0380; *Petroleum Supply Monthly* , DOE/EIA-0109; *Petroleum Supply Annual* , DOE/EIA-0340/2; and *Weekly Petroleum Status Report* , DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 5a. U.S. Natural Gas Supply, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Supply (billion cubic feet per day)															
Total Marketed Production	**97.65**	**101.12**	**101.89**	**105.04**	*103.67*	*103.78*	*104.57*	*105.50*	*105.63*	*106.12*	*106.95*	*107.49*	**101.45**	*104.39*	*106.55*
Alaska	**1.02**	**0.95**	**0.90**	**0.98**	*0.91*	*0.75*	*0.71*	*0.85*	*0.90*	*0.75*	*0.71*	*0.86*	**0.96**	*0.80*	*0.80*
Federal GOM (a)	**2.26**	**2.25**	**1.82**	**2.19**	*2.33*	*2.26*	*2.14*	*2.10*	*2.14*	*2.08*	*1.96*	*1.92*	**2.13**	*2.21*	*2.02*
Lower 48 States (excl GOM)	**94.37**	**97.92**	**99.17**	**101.87**	*100.44*	*100.77*	*101.72*	*102.55*	*102.60*	*103.28*	*104.28*	*104.71*	**98.36**	*101.38*	*103.73*
Total Dry Gas Production	**90.59**	**93.15**	**93.86**	**96.69**	*95.43*	*95.54*	*96.26*	*97.12*	*97.11*	*97.57*	*98.34*	*98.84*	**93.59**	*96.09*	*97.97*
LNG Gross Imports	**0.15**	**0.02**	**0.03**	**0.12**	*0.32*	*0.18*	*0.18*	*0.20*	*0.32*	*0.18*	*0.18*	*0.20*	**0.08**	*0.22*	*0.22*
LNG Gross Exports	**9.27**	**9.81**	**9.60**	**10.40**	*11.03*	*10.84*	*11.33*	*12.18*	*12.72*	*11.86*	*11.73*	*12.23*	**9.77**	*11.35*	*12.13*
Pipeline Gross Imports	**8.68**	**6.81**	**7.24**	**7.81**	*7.97*	*6.44*	*6.39*	*6.72*	*7.76*	*6.45*	*6.32*	*6.51*	**7.63**	*6.88*	*6.75*
Pipeline Gross Exports	**8.31**	**8.67**	**8.50**	**8.33**	*8.70*	*8.34*	*9.21*	*9.19*	*9.11*	*9.02*	*9.33*	*9.23*	**8.45**	*8.86*	*9.17*
Supplemental Gaseous Fuels	**0.18**	**0.15**	**0.15**	**0.18**	*0.17*	*0.17*	*0.17*	*0.17*	*0.17*	*0.17*	*0.17*	*0.17*	**0.16**	*0.17*	*0.17*
Net Inventory Withdrawals	**17.18**	**-9.12**	**-7.87**	**0.90**	*18.45*	*-10.89*	*-7.94*	*4.12*	*15.19*	*-11.16*	*-8.93*	*2.75*	**0.21**	*0.87*	*-0.60*
Total Supply	**99.19**	**72.52**	**75.31**	**86.97**	*102.61*	*72.26*	*74.51*	*86.96*	*98.71*	*72.34*	*75.02*	*87.00*	**83.44**	*84.01*	*83.21*
Balancing Item (b)	**0.21**	**-0.60**	**-0.23**	**-1.43**	*-0.13*	*-0.70*	*0.99*	*0.87*	*0.85*	*0.17*	*0.95*	*0.59*	**-0.52**	*0.26*	*0.64*
Total Primary Supply	**99.40**	**71.92**	**75.08**	**85.54**	*102.47*	*71.56*	*75.50*	*87.83*	*99.56*	*72.51*	*75.97*	*87.59*	**82.92**	*84.27*	*83.85*
Consumption (billion cubic feet per day)															
Residential	**25.67**	**7.49**	**3.62**	**14.48**	*25.86*	*7.91*	*3.71*	*16.65*	*25.08*	*7.91*	*3.76*	*16.51*	**12.76**	*13.48*	*13.27*
Commercial	**14.87**	**6.23**	**4.69**	**9.74**	*15.57*	*6.51*	*4.79*	*10.49*	*15.00*	*6.49*	*4.74*	*10.40*	**8.86**	*9.31*	*9.13*
Industrial	**23.81**	**21.46**	**21.13**	**23.58**	*24.75*	*22.17*	*22.25*	*24.99*	*24.85*	*22.37*	*22.37*	*25.24*	**22.49**	*23.54*	*23.70*
Electric Power (c)	**26.75**	**29.17**	**37.93**	**29.52**	*27.55*	*27.29*	*36.89*	*27.37*	*25.87*	*27.90*	*37.11*	*27.02*	**30.87**	*29.79*	*29.50*
Lease and Plant Fuel	**4.87**	**5.04**	**5.08**	**5.24**	*5.17*	*5.17*	*5.21*	*5.26*	*5.27*	*5.29*	*5.33*	*5.36*	**5.06**	*5.20*	*5.31*
Pipeline and Distribution Use	**3.29**	**2.38**	**2.48**	**2.83**	*3.41*	*2.35*	*2.48*	*2.91*	*3.32*	*2.38*	*2.50*	*2.90*	**2.74**	*2.79*	*2.77*
Vehicle Use	**0.14**	**0.15**	**0.15**	**0.15**	*0.16*	*0.16*	*0.16*	*0.16*	*0.16*	*0.16*	*0.16*	*0.16*	**0.15**	*0.16*	*0.16*
Total Consumption	**99.40**	**71.92**	**75.08**	**85.54**	*102.47*	*71.56*	*75.50*	*87.83*	*99.56*	*72.51*	*75.97*	*87.59*	**82.92**	*84.27*	*83.85*
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	**1,801**	**2,583**	**3,305**	**3,220**	*1,560*	*2,551*	*3,281*	*2,902*	*1,535*	*2,550*	*3,372*	*3,120*	**3,220**	*2,902*	*3,120*
East Region (d)	**313**	**515**	**804**	**767**	*244*	*515*	*780*	*644*	*258*	*564*	*852*	*752*	**767**	*644*	*752*
Midwest Region (d)	**395**	**630**	**966**	**893**	*309*	*564*	*909*	*799*	*330*	*602*	*942*	*836*	**893**	*799*	*836*
South Central Region (d)	**760**	**991**	**1,052**	**1,143**	*699*	*998*	*1,066*	*991*	*646*	*936*	*1,033*	*1,041*	**1,143**	*991*	*1,041*
Mountain Region (d)	**113**	**175**	**205**	**172**	*86*	*135*	*186*	*172*	*104*	*146*	*209*	*188*	**172**	*172*	*188*
Pacific Region (d)	**197**	**246**	**248**	**219**	*196*	*315*	*315*	*270*	*173*	*278*	*312*	*278*	**219**	*270*	*278*
Alaska	**23**	**27**	**30**	**26**	*25*	*25*	*25*	*25*	*25*	*25*	*25*	*25*	**26**	*25*	*25*

(a) Marketed production from U.S. Federal leases in the Gulf of Mexico.

(b) The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

(c) Natural gas used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

(d) For a list of States in each inventory region refer to *Weekly Natural Gas Storage Report, Notes and Definitions (http://ir.eia.gov/ngs/notes.html)* .

- = no data available

LNG: liquefied natural gas.

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Natural Gas Monthly* , DOE/EIA-0130; and *Electric Power Monthly* , Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 5b. U.S. Regional Natural Gas Prices (dollars per thousand cubic feet)

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Wholesale/Spot															
Henry Hub Spot Price	**3.70**	**3.06**	**4.53**	**4.96**	*4.51*	*3.97*	*3.93*	*3.86*	*3.88*	*3.60*	*3.66*	*3.80*	**4.06**	*4.07*	*3.74*
Residential Retail															
New England	**14.66**	**16.24**	**20.41**	**17.40**	*15.84*	*16.10*	*18.46*	*14.21*	*13.78*	*14.70*	*17.62*	*13.78*	**16.04**	*15.57*	*14.18*
Middle Atlantic	**10.43**	**13.49**	**19.81**	**14.64**	*12.07*	*13.79*	*18.00*	*11.83*	*10.80*	*12.95*	*17.42*	*11.40*	**12.54**	*12.66*	*11.76*
E. N. Central	**7.41**	**12.69**	**22.36**	**11.68**	*9.66*	*12.34*	*17.65*	*9.23*	*8.46*	*11.38*	*17.06*	*8.95*	**10.19**	*10.39*	*9.57*
W. N. Central	**7.49**	**11.63**	**20.31**	**12.81**	*10.33*	*12.77*	*18.36*	*10.16*	*8.80*	*11.59*	*17.66*	*9.76*	**10.12**	*11.08*	*9.99*
S. Atlantic	**11.95**	**18.04**	**27.54**	**16.81**	*13.66*	*18.21*	*23.88*	*13.43*	*11.98*	*17.01*	*23.17*	*13.04*	**15.23**	*14.99*	*13.80*
E. S. Central	**9.35**	**14.78**	**22.94**	**14.12**	*11.65*	*16.26*	*23.13*	*14.18*	*12.13*	*17.10*	*23.60*	*14.69*	**11.86**	*13.88*	*14.37*
W. S. Central	**9.23**	**15.85**	**23.76**	**16.06**	*11.20*	*16.03*	*21.43*	*12.18*	*9.22*	*14.77*	*20.79*	*11.94*	**12.93**	*13.27*	*11.75*
Mountain	**7.90**	**10.64**	**15.58**	**11.22**	*10.14*	*11.44*	*14.78*	*9.22*	*8.61*	*10.29*	*14.09*	*8.86*	**9.81**	*10.39*	*9.36*
Pacific	**14.20**	**15.01**	**15.90**	**16.15**	*15.74*	*15.98*	*16.42*	*15.06*	*15.06*	*15.52*	*16.16*	*15.07*	**15.12**	*15.65*	*15.27*
U.S. Average	**9.75**	**13.87**	**20.38**	**13.87**	*11.87*	*14.21*	*18.52*	*11.50*	*10.47*	*13.34*	*18.02*	*11.22*	**12.29**	*12.56*	*11.67*
Commercial Retail															
New England	**10.39**	**11.13**	**12.24**	**13.09**	*12.59*	*12.09*	*11.35*	*10.87*	*11.11*	*11.09*	*10.69*	*10.45*	**11.48**	*11.84*	*10.86*
Middle Atlantic	**7.92**	**8.00**	**7.98**	**10.02**	*9.88*	*9.25*	*8.40*	*8.61*	*8.80*	*8.40*	*7.76*	*8.16*	**8.54**	*9.19*	*8.41*
E. N. Central	**6.11**	**8.60**	**11.03**	**8.74**	*8.11*	*8.88*	*9.73*	*7.43*	*7.35*	*8.19*	*9.33*	*7.27*	**7.61**	*8.12*	*7.59*
W. N. Central	**6.32**	**7.69**	**9.94**	**10.23**	*8.95*	*8.95*	*9.86*	*7.81*	*7.68*	*8.17*	*9.41*	*7.61*	**7.87**	*8.65*	*7.85*
S. Atlantic	**8.69**	**9.84**	**10.37**	**10.87**	*10.17*	*10.71*	*10.75*	*9.52*	*9.19*	*10.05*	*10.39*	*9.46*	**9.72**	*10.13*	*9.56*
E. S. Central	**8.33**	**9.90**	**11.95**	**11.36**	*10.24*	*10.82*	*11.04*	*9.67*	*9.08*	*10.01*	*10.52*	*9.37*	**9.77**	*10.23*	*9.47*
W. S. Central	**6.91**	**8.57**	**10.12**	**10.81**	*9.22*	*9.11*	*9.16*	*8.15*	*7.44*	*8.03*	*8.53*	*7.82*	**8.63**	*8.89*	*7.80*
Mountain	**6.50**	**7.76**	**9.26**	**9.03**	*8.79*	*8.91*	*9.49*	*8.07*	*7.73*	*7.99*	*8.77*	*7.55*	**7.74**	*8.65*	*7.82*
Pacific	**10.46**	**10.31**	**11.31**	**11.78**	*11.40*	*10.73*	*10.85*	*10.21*	*9.77*	*9.29*	*9.46*	*8.97*	**10.97**	*10.81*	*9.38*
U.S. Average	**7.54**	**8.85**	**10.12**	**10.23**	*9.52*	*9.66*	*9.76*	*8.61*	*8.39*	*8.76*	*9.11*	*8.23*	**8.80**	*9.31*	*8.48*
Industrial Retail															
New England	**8.59**	**8.08**	**7.85**	**10.03**	*9.83*	*8.99*	*7.83*	*8.67*	*9.02*	*8.40*	*7.45*	*8.55*	**8.77**	*8.99*	*8.49*
Middle Atlantic	**7.66**	**7.36**	**7.90**	**10.07**	*9.57*	*8.77*	*8.31*	*8.50*	*8.77*	*8.17*	*7.81*	*8.10*	**8.29**	*9.01*	*8.38*
E. N. Central	**5.43**	**8.14**	**8.48**	**8.22**	*7.53*	*6.89*	*6.56*	*6.37*	*6.68*	*6.36*	*6.24*	*6.27*	**7.00**	*6.96*	*6.45*
W. N. Central	**5.13**	**4.34**	**5.25**	**7.44**	*6.85*	*5.66*	*5.31*	*5.64*	*5.90*	*5.10*	*4.93*	*5.44*	**5.59**	*5.92*	*5.38*
S. Atlantic	**5.12**	**4.75**	**6.01**	**7.53**	*6.65*	*5.82*	*5.64*	*5.75*	*6.04*	*5.41*	*5.34*	*5.69*	**5.86**	*6.00*	*5.65*
E. S. Central	**4.72**	**4.28**	**5.37**	**7.19**	*6.31*	*5.52*	*5.20*	*5.39*	*5.68*	*5.05*	*4.84*	*5.26*	**5.39**	*5.63*	*5.23*
W. S. Central	**5.75**	**3.20**	**4.36**	**5.81**	*4.49*	*4.13*	*4.13*	*4.02*	*4.05*	*3.78*	*3.83*	*3.93*	**4.78**	*4.19*	*3.90*
Mountain	**4.98**	**5.31**	**6.66**	**7.37**	*7.20*	*6.77*	*6.74*	*6.40*	*6.40*	*6.10*	*6.21*	*6.04*	**6.01**	*6.79*	*6.20*
Pacific	**8.28**	**7.24**	**8.88**	**9.27**	*8.32*	*7.67*	*7.77*	*7.65*	*7.54*	*6.95*	*6.82*	*6.87*	**8.53**	*7.86*	*7.06*
U.S. Average	**5.73**	**4.09**	**5.10**	**6.80**	*5.91*	*5.05*	*4.88*	*5.09*	*5.34*	*4.63*	*4.53*	*4.92*	**5.48**	*5.25*	*4.87*

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Prices are not adjusted for inflation.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the *Natural Gas Monthly* , DOE/EIA-0130.

Natural gas Henry Hub spot price from Reuter's News Service (http://www.reuters.com).

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 6. U.S. Coal Supply, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Supply (million short tons)															
Production	**140.3**	**142.7**	**148.3**	**147.1**	*147.0*	*145.2*	*156.5*	*157.4*	*157.3*	*149.3*	*161.4*	*156.3*	**578.4**	*606.0*	*624.3*
Appalachia	**40.8**	**39.5**	**36.6**	**41.3**	*42.3*	*41.6*	*39.4*	*41.4*	*43.9*	*41.7*	*40.1*	*38.2*	**158.2**	*164.7*	*163.9*
Interior	**25.0**	**23.3**	**22.7**	**24.7**	*24.1*	*23.1*	*25.1*	*25.7*	*27.5*	*24.8*	*25.9*	*25.2*	**95.7**	*98.0*	*103.4*
Western	**74.5**	**80.0**	**89.0**	**81.0**	*80.6*	*80.5*	*92.0*	*90.3*	*85.9*	*82.8*	*95.5*	*92.9*	**324.6**	*343.3*	*357.0*
Primary Inventory Withdrawals	**-4.5**	**2.1**	**2.6**	**-1.9**	*-1.3*	*-2.2*	*-0.9*	*-5.2*	*-2.0*	*-1.2*	*1.6*	*-1.7*	**-1.7**	*-9.7*	*-3.2*
Imports	**1.1**	**1.5**	**1.1**	**1.4**	*1.0*	*0.9*	*1.1*	*1.1*	*1.3*	*2.0*	*2.6*	*2.4*	**5.1**	*4.1*	*8.3*
Exports	**20.7**	**22.1**	**20.7**	**22.0**	*26.9*	*17.9*	*18.8*	*25.1*	*21.9*	*23.3*	*22.9*	*24.3*	**85.6**	*88.7*	*92.5*
Metallurgical Coal	**10.3**	**11.7**	**11.4**	**13.8**	*14.5*	*10.5*	*12.1*	*13.5*	*13.1*	*14.1*	*13.6*	*14.2*	**47.2**	*50.6*	*55.0*
Steam Coal	**10.4**	**10.4**	**9.3**	**9.8**	*12.3*	*7.4*	*6.8*	*11.6*	*8.8*	*9.3*	*9.3*	*10.1*	**39.9**	*38.1*	*37.5*
Total Primary Supply	**116.2**	**124.2**	**131.3**	**124.5**	*119.8*	*126.0*	*137.9*	*128.1*	*134.6*	*126.8*	*142.8*	*132.7*	**496.2**	*511.8*	*536.8*
Secondary Inventory Withdrawals	**22.3**	**0.2**	**30.4**	**-14.4**	*5.5*	*-8.1*	*23.8*	*1.1*	*-1.6*	*-13.9*	*11.6*	*-6.5*	**38.6**	*22.4*	*-10.4*
Waste Coal (a)	**2.2**	**1.7**	**2.0**	**2.0**	*1.8*	*1.8*	*1.8*	*1.8*	*1.4*	*1.4*	*1.4*	*1.4*	**7.9**	*7.4*	*5.5*
Total Supply	**140.6**	**126.2**	**163.7**	**112.1**	*127.1*	*119.8*	*163.5*	*131.1*	*134.4*	*114.2*	*155.7*	*127.6*	**542.7**	*541.6*	*532.0*
Consumption (million short tons)															
Coke Plants	**4.4**	**4.5**	**4.4**	**4.6**	*5.4*	*4.9*	*4.7*	*5.2*	*5.2*	*5.3*	*5.3*	*5.3*	**17.8**	*20.2*	*21.2*
Electric Power Sector (b)	**127.9**	**113.8**	**157.0**	**104.4**	*118.7*	*108.0*	*152.0*	*118.9*	*122.0*	*102.7*	*144.1*	*115.2*	**503.1**	*497.7*	*484.1*
Retail and Other Industry	**6.8**	**6.3**	**6.5**	**7.1**	*7.2*	*6.8*	*6.8*	*7.1*	*7.2*	*6.2*	*6.2*	*7.0*	**26.8**	*27.9*	*26.7*
Residential and Commercial	**0.3**	**0.2**	**0.2**	**0.2**	*0.2*	*0.2*	*0.2*	*0.2*	*0.4*	*0.2*	*0.2*	*0.3*	**0.8**	*0.8*	*1.0*
Other Industrial	**6.6**	**6.2**	**6.3**	**6.9**	*7.0*	*6.7*	*6.6*	*6.8*	*6.8*	*6.0*	*6.1*	*6.7*	**26.0**	*27.1*	*25.7*
Total Consumption	**139.1**	**124.6**	**167.9**	**116.1**	*131.3*	*119.8*	*163.5*	*131.1*	*134.4*	*114.2*	*155.7*	*127.6*	**547.7**	*545.7*	*532.0*
Discrepancy (c)	**1.5**	**1.6**	**-4.1**	**-4.0**	*-4.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	**-5.0**	*-4.1*	*0.0*
End-of-period Inventories (million short tons)															
Primary Inventories (d)	**28.1**	**26.1**	**23.4**	**25.3**	*26.7*	*28.9*	*29.8*	*35.0*	*37.0*	*38.2*	*36.6*	*38.2*	**25.3**	*35.0*	*38.2*
Secondary Inventories	**115.8**	**115.6**	**85.1**	**99.5**	*94.0*	*102.0*	*78.3*	*77.1*	*78.7*	*92.6*	*81.1*	*87.5*	**99.5**	*77.1*	*87.5*
Electric Power Sector	**111.5**	**110.9**	**80.4**	**93.9**	*88.5*	*96.3*	*72.4*	*71.5*	*73.8*	*87.5*	*75.7*	*82.1*	**93.9**	*71.5*	*82.1*
Retail and General Industry	**2.6**	**2.6**	**2.7**	**3.4**	*3.6*	*3.5*	*3.5*	*3.3*	*2.8*	*2.8*	*3.0*	*3.1*	**3.4**	*3.3*	*3.1*
Coke Plants	**1.5**	**1.9**	**1.8**	**2.0**	*1.6*	*2.1*	*2.2*	*2.2*	*2.0*	*2.2*	*2.2*	*2.2*	**2.0**	*2.2*	*2.2*
Commercial & Institutional	**0.2**	**0.2**	**0.2**	**0.2**	*0.2*	*0.2*	*0.2*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	**0.2**	*0.2*	*0.1*
Coal Market Indicators															
Coal Miner Productivity (Tons per hour)	**6.32**	**6.32**	**6.32**	**6.32**	*6.30*	*6.30*	*6.30*	*6.30*	*6.21*	*6.21*	*6.21*	*6.21*	**6.32**	*6.30*	*6.21*
Total Raw Steel Production (Million short tons per day)	**0.246**	**0.258**	**0.267**	**0.260**	*0.269*	*0.267*	*0.274*	*0.284*	*0.302*	*0.295*	*0.300*	*0.308*	**0.258**	*0.274*	*0.301*
Cost of Coal to Electric Utilities (Dollars per million Btu)	**1.91**	**1.93**	**2.03**	**2.04**	*2.05*	*2.06*	*1.91*	*1.91*	*1.85*	*1.85*	*1.84*	*1.82*	**1.98**	*1.98*	*1.84*

(a) Waste coal includes waste coal and cloal slurry reprocessed into briquettes.

(b) Coal used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

(c) The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period.

(d) Primary stocks are held at the mines and distribution points.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Quarterly Coal Report* , DOE/EIA-0121; and *Electric Power Monthly* , Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Electricity Supply (billion kilowatthours)															
Electricity Generation	**991**	**985**	**1,167**	**978**	*1,016*	*995*	*1,168*	*990*	*1,013*	*1,007*	*1,178*	*999*	**4,120**	*4,169*	*4,196*
Electric Power Sector (a)	**954**	**948**	**1,126**	**938**	*977*	*957*	*1,126*	*950*	*974*	*968*	*1,136*	*959*	**3,966**	*4,010*	*4,037*
Industrial Sector (b)	**34**	**33**	**37**	**36**	*36*	*35*	*38*	*36*	*36*	*35*	*38*	*36*	**140**	*145*	*145*
Commercial Sector (b)	**3**	**3**	**4**	**3**	*3*	*3*	*4*	*3*	*3*	*3*	*4*	*3*	**13**	*14*	*14*
Net Imports	**11**	**11**	**11**	**11**	*12*	*12*	*15*	*11*	*12*	*13*	*15*	*12*	**44**	*50*	*51*
Total Supply	**1,002**	**996**	**1,177**	**989**	*1,028*	*1,007*	*1,183*	*1,001*	*1,026*	*1,019*	*1,193*	*1,010*	**4,164**	*4,219*	*4,247*
Losses and Unaccounted for (c)	**56**	**66**	**52**	**53**	*58*	*64*	*53*	*51*	*43*	*65*	*54*	*52*	**227**	*226*	*213*
Electricity Consumption (billion kilowatthours unless noted)															
Retail Sales	**913**	**898**	**1,089**	**900**	*935*	*909*	*1,092*	*914*	*948*	*920*	*1,101*	*923*	**3,801**	*3,851*	*3,893*
Residential Sector	**379**	**328**	**446**	**329**	*368*	*324*	*439*	*335*	*373*	*328*	*443*	*340*	**1,482**	*1,465*	*1,484*
Commercial Sector	**304**	**321**	**377**	**322**	*320*	*330*	*380*	*325*	*322*	*331*	*381*	*325*	**1,325**	*1,355*	*1,359*
Industrial Sector	**229**	**247**	**264**	**248**	*246*	*254*	*272*	*254*	*251*	*259*	*276*	*257*	**988**	*1,025*	*1,044*
Transportation Sector	**2**	**1**	**2**	**2**	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	**6**	*6*	*6*
Direct Use (d)	**33**	**33**	**36**	**35**	*35*	*34*	*37*	*35*	*35*	*34*	*37*	*35*	**137**	*141*	*141*
Total Consumption	**946**	**931**	**1,125**	**936**	*970*	*943*	*1,130*	*950*	*983*	*954*	*1,139*	*958*	**3,937**	*3,992*	*4,034*
Average residential electricity usage per customer (kWh)	**2,744**	**2,381**	**3,231**	**2,383**	*2,638*	*2,320*	*3,144*	*2,398*	*2,644*	*2,326*	*3,138*	*2,406*	**10,739**	*10,499*	*10,513*
End-of-period Fuel Inventories Held by Electric Power Sector															
Coal (mmst)	**111.5**	**110.9**	**80.4**	**93.9**	*88.5*	*96.3*	*72.4*	*71.5*	*73.8*	*87.5*	*75.7*	*82.1*	**93.9**	*71.5*	*82.1*
Residual Fuel (mmb)	**8.0**	**7.4**	**7.1**	**7.9**	*7.4*	*7.3*	*7.4*	*7.6*	*5.5*	*5.6*	*3.8*	*4.5*	**7.9**	*7.6*	*4.5*
Distillate Fuel (mmb)	**16.0**	**15.5**	**15.4**	**15.8**	*15.7*	*15.5*	*15.5*	*15.8*	*15.7*	*15.6*	*15.5*	*15.8*	**15.8**	*15.8*	*15.8*
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**1.91**	**1.93**	**2.03**	**2.04**	*2.05*	*2.06*	*1.91*	*1.91*	*1.85*	*1.85*	*1.84*	*1.82*	**1.98**	*1.98*	*1.84*
Natural Gas	**7.24**	**3.26**	**4.36**	**5.39**	*4.73*	*4.03*	*3.94*	*4.04*	*4.29*	*3.63*	*3.64*	*3.98*	**4.97**	*4.16*	*3.86*
Residual Fuel Oil	**11.28**	**13.09**	**14.22**	**15.92**	*15.27*	*16.51*	*15.35*	*14.14*	*13.72*	*13.78*	*12.66*	*12.27*	**13.62**	*15.28*	*13.09*
Distillate Fuel Oil	**13.54**	**15.20**	**16.19**	**18.00**	*19.82*	*19.56*	*18.72*	*17.66*	*16.83*	*16.23*	*15.92*	*15.93*	**15.50**	*19.05*	*16.28*
Retail Prices (cents per kilowatthour)															
Residential Sector	**13.10**	**13.84**	**14.00**	**13.92**	*13.91*	*14.49*	*14.47*	*14.18*	*14.06*	*14.56*	*14.53*	*14.21*	**13.72**	*14.26*	*14.34*
Commercial Sector	**10.99**	**11.07**	**11.64**	**11.28**	*11.58*	*11.59*	*11.99*	*11.53*	*11.77*	*11.66*	*12.05*	*11.56*	**11.27**	*11.69*	*11.77*
Industrial Sector	**7.09**	**6.92**	**7.63**	**7.30**	*7.20*	*7.03*	*7.59*	*7.15*	*7.15*	*6.99*	*7.53*	*7.12*	**7.25**	*7.25*	*7.20*
Wholesale Electricity Prices (dollars per megawatthour)															
ERCOT North hub	**616.34**	**39.74**	**52.31**	**49.79**	*37.03*	*35.50*	*41.97*	*32.33*	*32.45*	*31.34*	*34.99*	*30.84*	**189.54**	*36.71*	*32.41*
CAISO SP15 zone	**44.74**	**36.90**	**72.02**	**60.47**	*51.75*	*48.91*	*57.25*	*49.41*	*47.35*	*41.65*	*50.95*	*43.51*	**53.53**	*51.83*	*45.86*
ISO-NE Internal hub	**55.26**	**33.67**	**52.57**	**65.75**	*104.99*	*72.26*	*76.32*	*47.29*	*71.06*	*64.12*	*65.52*	*46.87*	**51.81**	*75.21*	*61.89*
NYISO Hudson Valley zone	**44.74**	**31.85**	**50.42**	**57.54**	*96.45*	*64.09*	*68.24*	*41.95*	*65.49*	*57.56*	*58.73*	*41.35*	**46.14**	*67.68*	*55.78*
PJM Western hub	**35.09**	**33.71**	**51.32**	**62.57**	*55.12*	*43.70*	*51.73*	*42.80*	*47.55*	*43.99*	*49.12*	*43.17*	**45.67**	*48.34*	*45.96*
Midcontinent ISO Illinois hub	**44.97**	**33.82**	**49.36**	**57.71**	*46.98*	*43.37*	*50.45*	*41.22*	*45.83*	*43.88*	*48.85*	*41.49*	**46.47**	*45.50*	*45.01*
SPP ISO South hub	**250.31**	**30.86**	**48.63**	**45.72**	*38.14*	*37.80*	*44.92*	*35.24*	*36.37*	*37.27*	*42.73*	*33.61*	**93.88**	*39.02*	*37.50*
SERC index, Into Southern	**41.10**	**32.93**	**44.18**	**51.34**	*41.24*	*40.75*	*44.11*	*38.06*	*40.89*	*38.66*	*41.78*	*37.08*	**42.39**	*41.04*	*39.60*
FRCC index, Florida Reliability	**27.73**	**32.17**	**42.76**	**49.02**	*40.17*	*38.36*	*39.42*	*36.96*	*38.21*	*35.98*	*36.68*	*36.16*	**37.92**	*38.73*	*36.76*
Northwest index, Mid-Columbia	**34.56**	**51.51**	**91.61**	**60.46**	*45.53*	*41.63*	*45.90*	*42.21*	*46.63*	*33.87*	*41.97*	*39.62*	**59.53**	*43.82*	*40.52*
Southwest index, Palo Verde	**41.72**	**46.57**	**79.86**	**53.60**	*41.49*	*41.95*	*50.22*	*42.64*	*39.33*	*38.51*	*44.65*	*38.08*	**55.44**	*44.08*	*40.14*

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

kWh = kilowatthours. Btu = British thermal units.

Prices are not adjusted for inflation.

(a) Generation supplied by power plants with capacity of at least 1 megawatt operated by electric utilities and independent power producers.

(b) Generation supplied by power plants with capacity of at least 1 megawatt operated by businesses in the commercial and industrial sectors, primarily for onsite use.

(c) Includes transmission and distribution losses, data collection time-frame differences, and estimation error.

(d) Direct Use represents commercial and industrial facility use of onsite net electricity generation; and electrical sales or transfers to adjacent or colocated facilities for which revenue information is not available. See Table 7.6 of the EIA *Monthly Energy Review*.

Historical data sources:

(1) Electricity supply, consumption, fuel costs, and retail electricity prices: Latest data available from U.S. Energy Information Administration databases supporting the following reports: Electric Power Monthly, DOE/EIA-0226; and Electric Power Annual, DOE/EIA-0348

(2) Wholesale electricity prices (except for PJM RTO price): S&P Global Market Intelligence, SNL Energy Data

(3) PJM ISO Western Hub wholesale electricity prices: PJM Data Miner website

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 7b. U.S. Regional Electricity Retail Sales (billion kilowatthours)

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Residential Sector															
New England	**12.9**	**10.8**	**14.0**	**11.0**	*13.0*	*10.1*	*13.5*	*11.2*	*12.9*	*10.0*	*13.5*	*11.2*	**48.7**	*47.7*	*47.6*
Middle Atlantic	**36.0**	**30.3**	**41.9**	**30.9**	*36.5*	*28.9*	*40.0*	*31.2*	*36.3*	*29.0*	*40.3*	*31.4*	**139.1**	*136.6*	*137.1*
E. N. Central	**50.1**	**43.1**	**56.3**	**43.9**	*50.6*	*40.9*	*53.0*	*44.7*	*50.2*	*41.3*	*53.6*	*45.2*	**193.4**	*189.1*	*190.3*
W. N. Central	**29.9**	**23.7**	**31.0**	**24.7**	*30.2*	*23.7*	*30.5*	*26.6*	*30.6*	*24.5*	*30.8*	*26.9*	**109.3**	*111.1*	*112.8*
S. Atlantic	**95.2**	**85.1**	**111.5**	**85.0**	*93.1*	*85.1*	*112.2*	*85.4*	*94.0*	*86.6*	*113.4*	*87.2*	**376.7**	*375.9*	*381.2*
E. S. Central	**33.5**	**25.3**	**35.8**	**26.3**	*31.5*	*25.8*	*35.9*	*26.9*	*32.2*	*26.1*	*35.9*	*27.3*	**120.8**	*120.1*	*121.4*
W. S. Central	**56.8**	**50.0**	**76.1**	**47.3**	*50.6*	*51.7*	*77.1*	*49.0*	*54.1*	*53.1*	*78.0*	*50.5*	**230.3**	*228.4*	*235.7*
Mountain	**23.7**	**26.9**	**35.2**	**22.4**	*23.2*	*25.2*	*35.0*	*23.1*	*23.6*	*25.7*	*35.7*	*23.5*	**108.2**	*106.4*	*108.4*
Pacific contiguous	**39.0**	**32.2**	**43.0**	**35.8**	*38.1*	*31.2*	*40.4*	*35.2*	*38.2*	*31.1*	*40.4*	*35.2*	**150.0**	*144.8*	*144.9*
AK and HI	**1.3**	**1.1**	**1.2**	**1.3**	*1.2*	*1.1*	*1.2*	*1.3*	*1.2*	*1.1*	*1.2*	*1.3*	**4.9**	*4.9*	*4.9*
Total	**378.5**	**328.5**	**445.8**	**328.7**	*368.0*	*323.7*	*438.7*	*334.6*	*373.2*	*328.4*	*443.0*	*339.7*	**1,481.5**	*1,465.0*	*1,484.3*
Commercial Sector															
New England	**11.7**	**11.7**	**13.5**	**11.7**	*12.3*	*11.8*	*13.5*	*11.8*	*12.3*	*11.8*	*13.4*	*11.7*	**48.7**	*49.4*	*49.2*
Middle Atlantic	**34.6**	**33.2**	**39.7**	**34.6**	*36.3*	*33.8*	*39.5*	*34.9*	*36.6*	*33.9*	*39.4*	*34.8*	**142.2**	*144.6*	*144.7*
E. N. Central	**41.7**	**42.1**	**48.9**	**42.1**	*43.6*	*42.8*	*48.6*	*42.5*	*43.7*	*42.8*	*48.5*	*42.5*	**174.8**	*177.5*	*177.4*
W. N. Central	**24.0**	**23.7**	**27.6**	**24.2**	*24.9*	*24.3*	*28.2*	*25.0*	*25.2*	*24.5*	*28.2*	*25.0*	**99.5**	*102.4*	*102.9*
S. Atlantic	**70.8**	**77.3**	**89.6**	**74.0**	*74.6*	*79.3*	*90.7*	*74.3*	*75.0*	*79.7*	*91.0*	*74.5*	**311.7**	*318.9*	*320.3*
E. S. Central	**20.7**	**21.5**	**26.0**	**21.0**	*22.0*	*22.4*	*26.5*	*21.1*	*22.3*	*22.5*	*26.5*	*21.0*	**89.1**	*92.0*	*92.4*
W. S. Central	**42.4**	**50.5**	**58.7**	**49.8**	*44.7*	*53.2*	*60.5*	*50.0*	*45.3*	*53.5*	*60.9*	*50.3*	**201.4**	*208.3*	*210.0*
Mountain	**21.9**	**24.8**	**28.8**	**23.2**	*22.8*	*24.8*	*28.9*	*23.6*	*23.0*	*25.0*	*29.1*	*23.7*	**98.8**	*100.1*	*100.8*
Pacific contiguous	**35.2**	**35.3**	**43.1**	**39.8**	*37.4*	*36.1*	*42.5*	*40.0*	*37.6*	*36.0*	*42.2*	*39.6*	**153.4**	*156.0*	*155.4*
AK and HI	**1.3**	**1.3**	**1.3**	**1.4**	*1.3*	*1.3*	*1.4*	*1.4*	*1.4*	*1.4*	*1.4*	*1.4*	**5.3**	*5.5*	*5.6*
Total	**304.3**	**321.5**	**377.2**	**321.9**	*319.9*	*329.7*	*380.3*	*324.7*	*322.3*	*331.1*	*380.6*	*324.7*	**1,324.9**	*1,354.6*	*1,358.8*
Industrial Sector															
New England	**3.8**	**4.0**	**4.2**	**3.9**	*3.9*	*4.0*	*4.2*	*3.9*	*3.9*	*4.0*	*4.2*	*3.9*	**15.8**	*16.0*	*15.9*
Middle Atlantic	**17.6**	**17.9**	**19.4**	**18.2**	*18.9*	*18.4*	*19.9*	*18.4*	*19.2*	*18.7*	*20.1*	*18.6*	**73.2**	*75.6*	*76.6*
E. N. Central	**44.5**	**46.4**	**48.6**	**46.1**	*47.6*	*47.3*	*50.0*	*47.2*	*48.9*	*48.4*	*50.7*	*47.7*	**185.6**	*192.1*	*195.7*
W. N. Central	**23.0**	**24.2**	**26.0**	**24.9**	*24.5*	*25.4*	*27.1*	*25.5*	*25.2*	*26.2*	*27.9*	*26.2*	**98.1**	*102.5*	*105.5*
S. Atlantic	**33.4**	**35.9**	**38.3**	**35.5**	*35.8*	*36.8*	*39.2*	*36.1*	*36.5*	*37.6*	*39.8*	*36.6*	**143.1**	*147.9*	*150.6*
E. S. Central	**23.7**	**24.9**	**26.1**	**25.1**	*26.3*	*26.0*	*26.8*	*25.5*	*26.6*	*26.3*	*26.9*	*25.5*	**99.8**	*104.7*	*105.3*
W. S. Central	**44.1**	**49.7**	**54.3**	**52.7**	*49.2*	*53.0*	*57.6*	*55.4*	*51.5*	*55.4*	*60.0*	*57.6*	**200.9**	*215.2*	*224.5*
Mountain	**19.2**	**21.6**	**23.2**	**20.4**	*19.6*	*21.7*	*23.6*	*20.8*	*19.9*	*22.1*	*23.9*	*21.0*	**84.3**	*85.6*	*86.9*
Pacific contiguous	**18.2**	**20.9**	**23.1**	**20.3**	*18.9*	*20.4*	*22.3*	*19.5*	*18.2*	*19.7*	*21.4*	*18.8*	**82.5**	*81.0*	*78.1*
AK and HI	**1.1**	**1.2**	**1.2**	**1.2**	*1.1*	*1.2*	*1.2*	*1.2*	*1.1*	*1.2*	*1.2*	*1.2*	**4.6**	*4.7*	*4.7*
Total	**228.5**	**246.7**	**264.4**	**248.3**	*245.7*	*254.2*	*271.8*	*253.5*	*251.1*	*259.4*	*276.2*	*257.1*	**987.9**	*1,025.2*	*1,043.8*
Total All Sectors (a)															
New England	**28.5**	**26.6**	**31.7**	**26.8**	*29.3*	*25.9*	*31.3*	*27.0*	*29.2*	*25.8*	*31.2*	*26.9*	**113.6**	*113.6*	*113.2*
Middle Atlantic	**89.1**	**82.2**	**101.8**	**84.6**	*92.6*	*81.9*	*100.2*	*85.3*	*93.0*	*82.4*	*100.6*	*85.6*	**357.7**	*360.0*	*361.5*
E. N. Central	**136.4**	**131.7**	**154.0**	**132.2**	*142.0*	*131.0*	*151.7*	*134.5*	*142.9*	*132.6*	*153.0*	*135.5*	**554.3**	*559.2*	*563.9*
W. N. Central	**77.0**	**71.6**	**84.6**	**73.8**	*79.6*	*73.4*	*85.8*	*77.1*	*81.0*	*75.2*	*86.9*	*78.1*	**307.0**	*316.0*	*321.3*
S. Atlantic	**199.7**	**198.6**	**239.6**	**194.7**	*203.8*	*201.5*	*242.4*	*196.1*	*205.8*	*204.2*	*244.5*	*198.6*	**832.6**	*843.8*	*853.1*
E. S. Central	**77.8**	**71.8**	**87.8**	**72.4**	*79.8*	*74.2*	*89.2*	*73.5*	*81.1*	*74.9*	*89.4*	*73.8*	**309.7**	*316.7*	*319.2*
W. S. Central	**143.4**	**150.2**	**189.2**	**149.9**	*144.5*	*157.9*	*195.1*	*154.5*	*151.0*	*162.0*	*199.0*	*158.5*	**632.7**	*652.1*	*670.4*
Mountain	**64.9**	**73.3**	**87.3**	**66.1**	*65.6*	*71.8*	*87.5*	*67.5*	*66.5*	*72.8*	*88.7*	*68.2*	**291.5**	*292.3*	*296.2*
Pacific contiguous	**92.5**	**88.6**	**109.3**	**96.2**	*94.5*	*87.9*	*105.3*	*94.9*	*94.1*	*86.9*	*104.2*	*93.8*	**386.7**	*382.5*	*379.0*
AK and HI	**3.7**	**3.6**	**3.7**	**3.9**	*3.7*	*3.6*	*3.8*	*3.9*	*3.7*	*3.6*	*3.8*	*3.9*	**14.9**	*15.0*	*15.1*
Total	**913.0**	**898.2**	**1,089.0**	**900.5**	*935.3*	*909.1*	*1,092.4*	*914.4*	*948.3*	*920.4*	*1,101.4*	*923.0*	**3,800.7**	*3,851.2*	*3,893.1*

(a) Total retail sales to all sectors includes residential, commercial, industrial, and transportation sector sales.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Retail Sales represents total retail electricity sales by electric utilities and power marketers.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly* , DOE/EIA-0226; and *Electric*

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 7c. U.S. Regional Retail Electricity Prices (Cents per Kilowatthour)

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Residential Sector															
New England	**21.38**	**21.36**	**21.45**	**21.84**	*23.51*	*24.33*	*24.78*	*25.16*	*26.54*	*26.76*	*26.51*	*26.26*	**21.50**	*24.43*	*26.51*
Middle Atlantic	**15.63**	**16.51**	**16.93**	**16.79**	*16.68*	*17.67*	*17.90*	*17.26*	*16.78*	*17.51*	*17.76*	*17.24*	**16.47**	*17.38*	*17.33*
E. N. Central	**13.39**	**14.50**	**14.15**	**14.47**	*14.04*	*15.26*	*14.82*	*14.86*	*14.30*	*15.40*	*14.94*	*15.00*	**14.11**	*14.72*	*14.88*
W. N. Central	**10.88**	**12.77**	**13.29**	**11.80**	*10.92*	*12.36*	*12.38*	*10.92*	*10.56*	*12.17*	*12.70*	*11.13*	**12.18**	*11.63*	*11.63*
S. Atlantic	**11.66**	**12.34**	**12.48**	**12.45**	*12.48*	*13.11*	*13.08*	*12.72*	*12.43*	*12.90*	*12.85*	*12.57*	**12.23**	*12.86*	*12.70*
E. S. Central	**11.20**	**12.24**	**12.00**	**12.16**	*11.93*	*12.65*	*12.23*	*12.21*	*11.92*	*12.68*	*12.33*	*12.31*	**11.86**	*12.24*	*12.29*
W. S. Central	**11.85**	**11.70**	**11.82**	**12.31**	*13.01*	*12.05*	*11.89*	*12.08*	*12.76*	*11.90*	*11.80*	*12.03*	**11.90**	*12.22*	*12.09*
Mountain	**11.53**	**12.09**	**12.33**	**12.29**	*12.26*	*12.73*	*12.79*	*12.57*	*12.40*	*12.77*	*12.81*	*12.60*	**12.09**	*12.61*	*12.66*
Pacific	**16.76**	**18.15**	**19.43**	**17.16**	*16.97*	*19.02*	*20.44*	*17.98*	*17.89*	*20.21*	*21.14*	*18.26*	**17.92**	*18.62*	*19.38*
U.S. Average	**13.10**	**13.84**	**14.00**	**13.92**	*13.91*	*14.49*	*14.47*	*14.18*	*14.06*	*14.56*	*14.53*	*14.21*	**13.72**	*14.26*	*14.34*
Commercial Sector															
New England	**16.32**	**15.96**	**16.80**	**16.79**	*17.66*	*17.49*	*18.44*	*18.25*	*18.86*	*18.25*	*18.88*	*18.43*	**16.48**	*17.97*	*18.62*
Middle Atlantic	**12.53**	**13.24**	**14.79**	**13.36**	*13.42*	*14.12*	*15.43*	*13.76*	*13.58*	*14.02*	*15.26*	*13.51*	**13.53**	*14.22*	*14.12*
E. N. Central	**10.40**	**10.70**	**10.69**	**10.97**	*11.07*	*11.31*	*11.09*	*11.11*	*11.07*	*11.27*	*11.14*	*11.23*	**10.69**	*11.14*	*11.17*
W. N. Central	**9.10**	**10.19**	**10.83**	**9.55**	*9.09*	*9.61*	*9.71*	*8.62*	*8.65*	*9.47*	*9.98*	*8.84*	**9.95**	*9.27*	*9.26*
S. Atlantic	**9.29**	**9.19**	**9.53**	**9.97**	*9.99*	*9.71*	*9.84*	*10.06*	*9.89*	*9.60*	*9.79*	*10.00*	**9.49**	*9.90*	*9.82*
E. S. Central	**10.98**	**11.24**	**11.27**	**11.41**	*11.46*	*11.61*	*11.52*	*11.57*	*11.54*	*11.66*	*11.64*	*11.72*	**11.23**	*11.54*	*11.64*
W. S. Central	**10.39**	**8.89**	**8.55**	**8.31**	*10.13*	*8.88*	*8.60*	*8.51*	*10.54*	*9.05*	*8.78*	*8.66*	**8.97**	*8.98*	*9.20*
Mountain	**9.11**	**9.76**	**10.20**	**9.56**	*9.41*	*10.04*	*10.38*	*9.61*	*9.43*	*9.99*	*10.32*	*9.59*	**9.70**	*9.90*	*9.86*
Pacific	**14.52**	**15.99**	**18.09**	**15.77**	*15.77*	*17.57*	*19.57*	*16.94*	*16.81*	*18.26*	*19.82*	*16.99*	**16.19**	*17.52*	*18.01*
U.S. Average	**10.99**	**11.07**	**11.64**	**11.28**	*11.58*	*11.59*	*11.99*	*11.53*	*11.77*	*11.66*	*12.05*	*11.56*	**11.27**	*11.69*	*11.77*
Industrial Sector															
New England	**13.48**	**12.97**	**13.68**	**14.04**	*14.55*	*13.69*	*14.33*	*14.58*	*14.93*	*13.89*	*14.41*	*14.63*	**13.54**	*14.29*	*14.46*
Middle Atlantic	**6.52**	**6.59**	**7.26**	**7.12**	*6.73*	*6.66*	*7.14*	*6.73*	*6.47*	*6.49*	*6.93*	*6.58*	**6.88**	*6.82*	*6.62*
E. N. Central	**6.97**	**6.97**	**7.40**	**7.62**	*7.27*	*7.15*	*7.46*	*7.51*	*7.29*	*7.21*	*7.49*	*7.57*	**7.24**	*7.35*	*7.39*
W. N. Central	**6.97**	**7.30**	**8.00**	**6.93**	*7.01*	*7.46*	*8.10*	*6.95*	*7.10*	*7.56*	*8.20*	*7.05*	**7.32**	*7.39*	*7.49*
S. Atlantic	**6.24**	**6.31**	**7.05**	**6.84**	*6.43*	*6.42*	*7.02*	*6.67*	*6.41*	*6.38*	*6.98*	*6.66*	**6.62**	*6.64*	*6.61*
E. S. Central	**5.75**	**5.86**	**6.28**	**6.28**	*5.98*	*5.98*	*6.28*	*6.15*	*5.96*	*5.95*	*6.24*	*6.13*	**6.05**	*6.10*	*6.07*
W. S. Central	**7.23**	**5.46**	**6.00**	**6.05**	*6.78*	*5.42*	*5.77*	*5.71*	*6.51*	*5.21*	*5.52*	*5.51*	**6.15**	*5.90*	*5.67*
Mountain	**6.27**	**6.63**	**7.39**	**6.49**	*6.51*	*6.74*	*7.39*	*6.50*	*6.54*	*6.77*	*7.41*	*6.52*	**6.72**	*6.81*	*6.83*
Pacific	**9.68**	**10.71**	**12.62**	**11.02**	*10.07*	*11.06*	*12.86*	*11.27*	*10.36*	*11.37*	*13.21*	*11.57*	**11.09**	*11.38*	*11.68*
U.S. Average	**7.09**	**6.92**	**7.63**	**7.30**	*7.20*	*7.03*	*7.59*	*7.15*	*7.15*	*6.99*	*7.53*	*7.12*	**7.25**	*7.25*	*7.20*
All Sectors (a)															
New England	**18.21**	**17.68**	**18.41**	**18.43**	*19.80*	*19.53*	*20.60*	*20.54*	*21.68*	*20.83*	*21.57*	*21.11*	**18.19**	*20.13*	*21.32*
Middle Atlantic	**12.58**	**12.98**	**14.21**	**13.26**	*13.32*	*13.68*	*14.76*	*13.52*	*13.36*	*13.54*	*14.59*	*13.37*	**13.30**	*13.85*	*13.74*
E. N. Central	**10.38**	**10.62**	**10.91**	**10.96**	*10.85*	*11.04*	*11.19*	*11.09*	*10.91*	*11.07*	*11.26*	*11.19*	**10.72**	*11.04*	*11.11*
W. N. Central	**9.16**	**10.07**	**10.86**	**9.42**	*9.15*	*9.76*	*10.15*	*8.86*	*8.88*	*9.68*	*10.38*	*9.03*	**9.90**	*9.49*	*9.51*
S. Atlantic	**9.91**	**10.01**	**10.50**	**10.48**	*10.50*	*10.54*	*10.88*	*10.60*	*10.43*	*10.41*	*10.75*	*10.51*	**10.24**	*10.64*	*10.54*
E. S. Central	**9.48**	**9.72**	**10.08**	**9.90**	*9.84*	*10.00*	*10.23*	*9.92*	*9.86*	*10.01*	*10.29*	*10.01*	**9.81**	*10.01*	*10.05*
W. S. Central	**10.00**	**8.69**	**9.13**	**8.78**	*9.99*	*8.76*	*9.07*	*8.64*	*9.96*	*8.67*	*8.98*	*8.59*	**9.14**	*9.10*	*9.03*
Mountain	**9.16**	**9.69**	**10.31**	**9.54**	*9.55*	*9.99*	*10.53*	*9.67*	*9.62*	*9.99*	*10.54*	*9.68*	**9.72**	*9.98*	*10.00*
Pacific	**14.51**	**15.52**	**17.45**	**15.28**	*15.10*	*16.55*	*18.47*	*16.14*	*15.98*	*17.37*	*18.96*	*16.37*	**15.76**	*16.62*	*17.21*
U.S. Average	**10.89**	**10.94**	**11.63**	**11.15**	*11.34*	*11.34*	*11.89*	*11.28*	*11.44*	*11.37*	*11.91*	*11.30*	**11.17**	*11.48*	*11.52*

(a) Volume-weighted average of retail prices to residential, commercial, industrial, and transportation sectors.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Prices are not adjusted for inflation.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly* , DOE/EIA-0226; and *Electric*

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 7d part 1. U.S. Regional Electricity Generation, Electric Power Sector (billion kilowatthours), *continues on Table 7d part 2*

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
United States															
Natural Gas	**320.7**	**345.6**	**453.6**	**356.0**	*329.5*	*322.6*	*440.3*	*329.8*	*309.1*	*328.8*	*441.3*	*324.4*	**1,475.9**	*1,422.1*	*1,403.7*
Coal	**230.0**	**203.8**	**280.9**	**183.5**	*214.9*	*194.7*	*272.1*	*211.1*	*221.9*	*184.7*	*257.9*	*204.1*	**898.2**	*892.7*	*868.7*
Nuclear	**198.4**	**186.6**	**202.8**	**192.0**	*194.6*	*190.8*	*204.4*	*192.8*	*195.3*	*188.9*	*207.7*	*198.0*	**779.7**	*782.5*	*789.9*
Renewable Energy Sources:	**197.9**	**207.3**	**183.2**	**200.3**	*230.3*	*243.3*	*204.4*	*210.6*	*240.9*	*260.7*	*223.3*	*226.5*	**788.7**	*888.6*	*951.4*
Conventional Hydropower	**68.7**	**65.8**	**60.8**	**62.4**	*74.2*	*80.9*	*64.6*	*58.2*	*71.4*	*82.1*	*66.1*	*60.2*	**257.6**	*277.9*	*279.9*
Wind	**96.9**	**96.1**	**76.8**	**104.3**	*118.0*	*108.1*	*84.8*	*112.1*	*122.9*	*111.8*	*88.1*	*116.4*	**374.1**	*423.0*	*439.2*
Solar (a)	**21.2**	**34.7**	**34.5**	**23.3**	*27.6*	*44.1*	*44.1*	*29.9*	*36.1*	*57.1*	*58.1*	*39.6*	**113.7**	*145.7*	*190.9*
Biomass	**7.2**	**6.8**	**7.2**	**6.6**	*6.6*	*6.3*	*6.9*	*6.4*	*6.8*	*6.4*	*6.9*	*6.5*	**27.7**	*26.2*	*26.5*
Geothermal	**3.8**	**3.9**	**4.0**	**3.8**	*3.8*	*3.9*	*4.0*	*4.0*	*3.7*	*3.4*	*4.0*	*3.8*	**15.6**	*15.7*	*14.9*
Pumped Storage Hydropower	**-1.1**	**-1.0**	**-1.8**	**-1.1**	*-0.8*	*-1.1*	*-1.9*	*-0.9*	*-0.7*	*-1.0*	*-1.8*	*-0.8*	**-4.9**	*-4.7*	*-4.3*
Petroleum (b)	**5.2**	**3.5**	**4.7**	**4.5**	*5.6*	*3.7*	*4.4*	*3.9*	*4.8*	*3.6*	*4.4*	*4.1*	**18.0**	*17.6*	*16.9*
Other Gases	**0.7**	**0.8**	**0.9**	**0.9**	*0.9*	*0.8*	*0.9*	*0.9*	*0.9*	*0.7*	*0.9*	*0.9*	**3.3**	*3.5*	*3.3*
Other Nonrenewable Fuels (c)	**1.8**	**1.8**	**1.8**	**1.8**	*1.9*	*1.8*	*1.8*	*1.8*	*1.9*	*1.8*	*1.8*	*1.8*	**7.2**	*7.3*	*7.3*
Total Generation	**953.6**	**948.4**	**1,126.2**	**937.9**	*976.8*	*956.5*	*1,126.3*	*950.0*	*974.1*	*968.3*	*1,135.5*	*959.0*	**3,966.0**	*4,009.7*	*4,036.9*
New England (ISO-NE)															
Natural Gas	**12.1**	**11.0**	**15.7**	**11.7**	*12.6*	*12.4*	*15.6*	*11.8*	*14.0*	*12.7*	*15.7*	*12.5*	**50.5**	*52.4*	*55.0*
Coal	**0.5**	**0.0**	**0.0**	**0.2**	*0.3*	*0.3*	*0.0*	*0.3*	*0.3*	*0.2*	*0.0*	*0.3*	**0.8**	*0.9*	*0.8*
Nuclear	**7.1**	**7.1**	**7.3**	**5.7**	*7.0*	*6.2*	*7.2*	*7.2*	*7.1*	*5.6*	*7.2*	*6.2*	**27.1**	*27.7*	*26.2*
Conventional hydropower	**1.7**	**1.5**	**1.5**	**1.7**	*2.0*	*2.2*	*1.2*	*1.8*	*2.0*	*2.2*	*1.2*	*1.8*	**6.4**	*7.1*	*7.2*
Nonhydro renewables (d)	**2.8**	**2.9**	**2.6**	**2.7**	*3.0*	*3.0*	*2.7*	*2.8*	*3.1*	*3.1*	*2.8*	*2.9*	**11.1**	*11.6*	*11.9*
Other energy sources (e)	**0.4**	**0.3**	**0.3**	**0.4**	*1.4*	*0.4*	*0.3*	*0.4*	*0.8*	*0.4*	*0.3*	*0.4*	**1.5**	*2.5*	*1.8*
Total generation	**24.6**	**22.9**	**27.6**	**22.3**	*26.3*	*24.4*	*27.2*	*24.3*	*27.2*	*24.3*	*27.3*	*24.1*	**97.4**	*102.2*	*102.9*
Net energy for load (f)	**29.4**	**26.9**	**32.4**	**27.5**	*30.2*	*27.3*	*32.4*	*28.6*	*30.2*	*27.5*	*32.5*	*28.8*	**116.3**	*118.4*	*119.1*
New York (NYISO)															
Natural Gas	**12.8**	**14.1**	**19.7**	**15.3**	*16.3*	*14.4*	*21.4*	*17.0*	*15.2*	*14.7*	*20.5*	*16.4*	**62.0**	*69.2*	*66.7*
Coal	**0.0**	**0.0**	**0.0**	**0.0**	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	**0.0**	*0.0*	*0.0*
Nuclear	**9.3**	**7.7**	**7.2**	**6.9**	*6.4*	*6.8*	*6.5*	*6.7*	*6.5*	*6.3*	*6.9*	*6.9*	**31.1**	*26.4*	*26.5*
Conventional hydropower	**6.9**	**6.8**	**6.9**	**7.2**	*6.8*	*6.9*	*6.8*	*7.0*	*7.3*	*7.3*	*7.3*	*7.5*	**27.8**	*27.6*	*29.4*
Nonhydro renewables (d)	**1.8**	**1.8**	**1.6**	**1.9**	*2.0*	*2.0*	*1.7*	*2.0*	*2.2*	*2.5*	*2.1*	*2.6*	**7.1**	*7.7*	*9.4*
Other energy sources (e)	**0.6**	**0.2**	**0.4**	**0.1**	*0.4*	*0.1*	*0.3*	*0.2*	*0.4*	*0.2*	*0.3*	*0.2*	**1.3**	*1.0*	*1.0*
Total generation	**31.5**	**30.6**	**35.8**	**31.4**	*32.0*	*30.2*	*36.7*	*33.0*	*31.6*	*31.0*	*37.1*	*33.5*	**129.3**	*131.8*	*133.1*
Net energy for load (f)	**36.6**	**34.7**	**42.8**	**34.9**	*37.9*	*35.5*	*43.2*	*36.6*	*38.2*	*36.0*	*43.6*	*37.0*	**149.0**	*153.3*	*154.9*
Mid-Atlantic (PJM)															
Natural Gas	**72.7**	**70.7**	**88.8**	**77.7**	*77.5*	*68.6*	*87.1*	*75.2*	*76.1*	*73.7*	*93.7*	*75.8*	**310.0**	*308.4*	*319.3*
Coal	**50.5**	**39.9**	**55.4**	**30.1**	*47.6*	*37.3*	*50.6*	*38.6*	*47.6*	*35.5*	*48.3*	*37.5*	**176.0**	*174.2*	*168.9*
Nuclear	**68.3**	**64.6**	**70.5**	**68.0**	*68.3*	*67.9*	*72.2*	*66.7*	*67.8*	*67.2*	*71.8*	*69.3*	**271.5**	*275.1*	*276.0*
Conventional hydropower	**2.6**	**2.3**	**2.2**	**2.4**	*2.7*	*2.6*	*1.7*	*2.1*	*2.6*	*2.6*	*1.7*	*2.1*	**9.5**	*9.1*	*9.0*
Nonhydro renewables (d)	**11.0**	**10.7**	**9.2**	**11.2**	*12.0*	*12.1*	*10.0*	*12.1*	*13.6*	*13.9*	*11.9*	*13.5*	**42.1**	*46.2*	*52.8*
Other energy sources (e)	**0.9**	**0.6**	**0.4**	**0.7**	*0.8*	*0.6*	*0.4*	*0.6*	*0.8*	*0.6*	*0.4*	*0.7*	**2.5**	*2.4*	*2.4*
Total generation	**206.0**	**188.8**	**226.6**	**190.2**	*208.9*	*189.1*	*221.9*	*195.4*	*208.5*	*193.5*	*227.7*	*198.9*	**811.6**	*815.4*	*828.5*
Net energy for load (f)	**194.5**	**177.5**	**215.3**	**182.6**	*201.4*	*177.1*	*209.1*	*184.6*	*200.4*	*179.9*	*211.4*	*186.8*	**769.9**	*772.3*	*778.6*
Southeast (SERC)															
Natural Gas	**58.0**	**57.2**	**73.1**	**65.5**	*59.5*	*56.1*	*69.5*	*55.8*	*53.8*	*58.1*	*69.8*	*56.8*	**253.9**	*240.8*	*238.5*
Coal	**36.3**	**33.7**	**44.3**	**25.2**	*35.4*	*35.8*	*50.3*	*34.4*	*39.2*	*35.3*	*48.9*	*34.0*	**139.5**	*155.9*	*157.3*
Nuclear	**53.8**	**52.2**	**54.1**	**52.2**	*51.8*	*52.5*	*56.8*	*54.8*	*54.3*	*54.9*	*60.2*	*58.0*	**212.3**	*215.9*	*227.4*
Conventional hydropower	**11.6**	**10.4**	**10.9**	**11.3**	*11.7*	*8.5*	*7.4*	*8.2*	*11.0*	*8.3*	*7.4*	*8.5*	**44.2**	*35.8*	*35.2*
Nonhydro renewables (d)	**3.9**	**5.7**	**5.4**	**4.1**	*4.3*	*6.7*	*6.4*	*4.7*	*5.0*	*7.9*	*7.4*	*5.2*	**19.1**	*22.2*	*25.5*
Other energy sources (e)	**0.0**	**-0.2**	**-0.5**	**-0.1**	*0.0*	*-0.2*	*-0.5*	*-0.2*	*0.0*	*-0.2*	*-0.5*	*-0.2*	**-0.8**	*-0.8*	*-0.8*
Total generation	**163.7**	**159.0**	**187.3**	**158.2**	*162.8*	*159.3*	*189.9*	*157.8*	*163.3*	*164.3*	*193.2*	*162.4*	**668.2**	*669.7*	*683.1*
Net energy for load (f)	**164.2**	**162.3**	**186.3**	**158.6**	*168.5*	*160.9*	*191.2*	*158.7*	*168.0*	*164.9*	*194.1*	*161.7*	**671.4**	*679.3*	*688.7*
Florida (FRCC)															
Natural Gas	**34.7**	**43.8**	**52.5**	**40.3**	*36.2*	*46.4*	*51.6*	*38.3*	*36.7*	*47.4*	*52.2*	*38.6*	**171.3**	*172.5*	*174.9*
Coal	**4.7**	**5.3**	**5.6**	**3.3**	*2.8*	*3.1*	*4.2*	*4.0*	*3.0*	*3.0*	*4.1*	*4.0*	**18.8**	*14.0*	*14.2*
Nuclear	**7.8**	**7.2**	**7.2**	**7.3**	*7.6*	*7.3*	*8.0*	*7.1*	*7.1*	*6.9*	*8.0*	*7.4*	**29.5**	*30.0*	*29.4*
Conventional hydropower	**0.1**	**0.1**	**0.1**	**0.1**	*0.1*	*0.1*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	**0.2**	*0.2*	*0.2*
Nonhydro renewables (d)	**2.4**	**3.1**	**2.9**	**2.5**	*3.1*	*3.6*	*3.5*	*2.9*	*3.5*	*3.9*	*3.7*	*3.0*	**11.0**	*13.1*	*14.0*
Other energy sources (e)	**0.8**	**0.7**	**0.7**	**0.6**	*0.8*	*0.8*	*0.8*	*0.7*	*0.8*	*0.8*	*0.8*	*0.7*	**2.8**	*3.1*	*3.1*
Total generation	**50.4**	**60.2**	**68.9**	**54.1**	*50.6*	*61.2*	*68.1*	*53.1*	*51.2*	*62.0*	*68.8*	*53.7*	**233.6**	*232.9*	*235.8*
Net energy for load (f)	**50.8**	**55.0**	**71.1**	**56.1**	*48.9*	*58.7*	*67.8*	*52.5*	*49.1*	*59.3*	*68.3*	*53.1*	**233.0**	*227.9*	*229.8*

(a) Solar generation from large-scale power plants with more than 1 megawatt of capacity. Excludes generation from small-scale solar photovoltaic systems.

(b) Residual fuel oil, distillate fuel oil, petroleum coke, and other petroleum liquids.

(c) Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, nonrenewable waste, and miscellaneous technologies.

(d) Wind, large-scale solar, biomass, and geothermal

(e) Pumped storage hydroelectric, petroleum, other gases, batteries, and other nonrenewable fuels. See notes (b) and (c).

(f) Regional generation from generating units operated by electric power sector, plus energy receipts from minus energy deliveries to U.S. balancing authorities outside region.

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Data reflect generation supplied by power plants with a combined capacity of at least 1 megawatt operated by electric utilities and independent power producers.

Historical data: Latest data available from U.S. Energy Information Administration databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226; and *Electric Power Annual*, DOE/EIA-0348.

Attachment STF-235-11-d

Table 7d part 2. U.S. Regional Electricity Generation, Electric Power Sector (billion kilowatthours), *continued from Table 7d part 1*

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Midwest (MISO)															
Natural Gas	**35.5**	**41.0**	**50.1**	**44.1**	*42.0*	*36.9*	*48.5*	*35.5*	*38.3*	*42.8*	*56.0*	*38.9*	**170.7**	*162.8*	*176.0*
Coal	**69.7**	**60.1**	**83.2**	**55.7**	*64.8*	*62.5*	*81.7*	*64.6*	*69.1*	*57.2*	*72.8*	*61.3*	**268.7**	*273.6*	*260.4*
Nuclear	**23.6**	**22.6**	**25.2**	**24.4**	*22.7*	*22.1*	*23.5*	*22.9*	*22.1*	*21.2*	*22.5*	*21.0*	**95.8**	*91.2*	*86.8*
Conventional hydropower	**2.8**	**2.7**	**2.5**	**2.4**	*2.6*	*2.8*	*2.3*	*2.1*	*2.5*	*2.9*	*2.4*	*2.2*	**10.4**	*9.8*	*10.1*
Nonhydro renewables (d)	**24.1**	**23.1**	**18.5**	**25.9**	*26.3*	*25.0*	*20.0*	*27.1*	*27.0*	*26.0*	*21.2*	*28.0*	**91.7**	*98.4*	*102.3*
Other energy sources (e)	**1.8**	**1.3**	**1.7**	**1.7**	*1.7*	*1.4*	*1.5*	*1.3*	*1.6*	*1.4*	*1.5*	*1.4*	**6.5**	*5.9*	*5.9*
Total generation	**157.5**	**150.9**	**181.2**	**154.3**	*159.9*	*150.8*	*177.6*	*153.4*	*160.6*	*151.6*	*176.4*	*152.9*	**643.8**	*641.7*	*641.5*
Net energy for load (f)	**159.1**	**154.0**	**180.7**	**153.3**	*159.4*	*155.6*	*179.6*	*158.0*	*162.1*	*159.2*	*182.5*	*160.8*	**647.0**	*652.5*	*664.6*
Central (Southwest Power Pool)															
Natural Gas	**12.7**	**14.3**	**18.7**	**11.4**	*11.5*	*14.0*	*20.4*	*11.9*	*11.5*	*14.2*	*21.2*	*11.1*	**57.1**	*57.7*	*57.9*
Coal	**21.8**	**19.8**	**31.3**	**19.8**	*20.5*	*15.6*	*28.6*	*20.7*	*18.6*	*15.9*	*27.4*	*20.2*	**92.6**	*85.4*	*82.0*
Nuclear	**4.1**	**2.8**	**4.2**	**4.3**	*4.3*	*4.3*	*4.1*	*2.5*	*4.3*	*4.3*	*4.4*	*4.4*	**15.5**	*15.2*	*17.4*
Conventional hydropower	**4.2**	**3.9**	**3.6**	**3.5**	*3.7*	*4.2*	*3.8*	*3.1*	*3.9*	*4.7*	*4.3*	*3.5*	**15.2**	*14.8*	*16.4*
Nonhydro renewables (d)	**22.9**	**23.8**	**20.5**	**25.8**	*31.6*	*26.8*	*23.4*	*28.4*	*33.6*	*28.0*	*24.6*	*29.5*	**93.1**	*110.2*	*115.7*
Other energy sources (e)	**0.3**	**0.1**	**0.1**	**0.2**	*0.2*	*0.1*	*0.1*	*0.2*	*0.2*	*0.1*	*0.1*	*0.2*	**0.7**	*0.7*	*0.7*
Total generation	**66.0**	**64.7**	**78.4**	**64.9**	*71.9*	*65.0*	*80.3*	*66.7*	*72.1*	*67.3*	*81.9*	*68.8*	**274.1**	*284.0*	*290.1*
Net energy for load (f)	**65.2**	**66.6**	**77.2**	**62.6**	*66.2*	*64.7*	*78.4*	*64.7*	*66.4*	*67.0*	*79.9*	*66.2*	**271.6**	*274.1*	*279.5*
Texas (ERCOT)															
Natural Gas	**33.2**	**39.6**	**57.2**	**34.1**	*29.5*	*33.1*	*50.3*	*27.3*	*20.9*	*26.9*	*42.9*	*24.3*	**164.1**	*140.2*	*115.1*
Coal	**16.3**	**18.5**	**22.7**	**16.2**	*13.8*	*19.7*	*23.4*	*18.8*	*16.7*	*19.5*	*23.4*	*18.0*	**73.7**	*75.8*	*77.6*
Nuclear	**10.5**	**9.8**	**11.0**	**9.0**	*10.9*	*10.0*	*10.6*	*10.9*	*10.7*	*9.0*	*11.0*	*10.1*	**40.2**	*42.4*	*40.8*
Conventional hydropower	**0.2**	**0.2**	**0.1**	**0.1**	*0.2*	*0.2*	*0.1*	*0.1*	*0.2*	*0.2*	*0.1*	*0.1*	**0.6**	*0.6*	*0.6*
Nonhydro renewables (d)	**25.2**	**27.8**	**23.7**	**29.0**	*35.0*	*37.4*	*30.5*	*33.4*	*38.5*	*42.5*	*35.7*	*36.4*	**105.8**	*136.3*	*153.1*
Other energy sources (e)	**0.2**	**0.3**	**0.4**	**0.4**	*0.3*	*0.3*	*0.4*	*0.4*	*0.3*	*0.3*	*0.4*	*0.4*	**1.4**	*1.4*	*1.4*
Total generation	**85.6**	**96.2**	**115.2**	**88.8**	*89.6*	*100.8*	*115.4*	*90.9*	*87.3*	*98.4*	*113.5*	*89.4*	**385.8**	*396.7*	*388.6*
Net energy for load (f)	**85.6**	**96.2**	**115.2**	**88.8**	*89.6*	*100.8*	*115.4*	*90.9*	*87.3*	*98.4*	*113.5*	*89.4*	**385.8**	*396.7*	*388.6*
Northwest															
Natural Gas	**20.9**	**20.1**	**28.2**	**22.1**	*19.9*	*15.6*	*31.5*	*26.2*	*20.9*	*15.9*	*30.3*	*23.8*	**91.4**	*93.2*	*90.9*
Coal	**22.5**	**19.1**	**26.6**	**23.3**	*22.0*	*13.6*	*24.3*	*21.9*	*20.8*	*12.3*	*24.0*	*20.2*	**91.6**	*81.7*	*77.3*
Nuclear	**2.5**	**1.2**	**2.5**	**2.3**	*2.4*	*2.4*	*2.4*	*2.4*	*2.3*	*1.2*	*2.4*	*2.4*	**8.5**	*9.6*	*8.3*
Conventional hydropower	**33.8**	**31.0**	**25.7**	**28.9**	*38.1*	*42.6*	*31.1*	*27.8*	*34.4*	*41.7*	*30.6*	*27.9*	**119.5**	*139.7*	*134.6*
Nonhydro renewables (d)	**15.9**	**17.0**	**15.2**	**16.2**	*17.3*	*17.4*	*16.5*	*17.7*	*19.0*	*18.8*	*17.8*	*19.7*	**64.3**	*68.9*	*75.3*
Other energy sources (e)	**0.2**	**0.2**	**0.2**	**0.2**	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	**0.7**	*0.8*	*0.8*
Total generation	**95.8**	**88.7**	**98.5**	**93.1**	*99.8*	*91.7*	*106.1*	*96.2*	*97.5*	*90.2*	*105.3*	*94.1*	**376.0**	*393.9*	*387.2*
Net energy for load (f)	**89.3**	**84.6**	**97.7**	**89.5**	*91.9*	*85.4*	*96.6*	*89.6*	*90.9*	*85.5*	*96.7*	*89.6*	**361.0**	*363.6*	*362.7*
Southwest															
Natural Gas	**10.9**	**15.7**	**20.1**	**12.1**	*9.1*	*11.5*	*17.8*	*9.6*	*7.9*	*10.7*	*15.7*	*7.6*	**58.7**	*48.1*	*41.9*
Coal	**5.5**	**5.6**	**8.3**	**7.4**	*5.5*	*5.2*	*6.3*	*5.4*	*4.5*	*4.2*	*6.3*	*6.2*	**26.9**	*22.5*	*21.2*
Nuclear	**8.5**	**7.1**	**8.6**	**7.5**	*8.3*	*7.4*	*8.6*	*7.5*	*8.4*	*7.5*	*8.6*	*7.5*	**31.7**	*31.9*	*32.1*
Conventional hydropower	**2.5**	**3.2**	**3.2**	**2.0**	*2.5*	*3.7*	*3.7*	*2.5*	*2.8*	*3.9*	*3.8*	*2.6*	**10.9**	*12.3*	*13.1*
Nonhydro renewables (d)	**3.1**	**3.9**	**3.2**	**3.9**	*5.1*	*5.6*	*4.1*	*5.0*	*5.5*	*6.4*	*4.9*	*5.9*	**14.1**	*19.9*	*22.7*
Other energy sources (e)	**0.0**	**0.1**	**0.1**	**0.0**	*0.0*	*0.1*	*0.1*	*0.0*	*0.0*	*0.1*	*0.1*	*0.0*	**0.1**	*0.2*	*0.1*
Total generation	**30.4**	**35.7**	**43.4**	**32.9**	*30.6*	*33.6*	*40.6*	*30.0*	*29.1*	*32.8*	*39.5*	*29.8*	**142.4**	*134.8*	*131.2*
Net energy for load (f)	**19.7**	**25.9**	**32.2**	**20.8**	*20.4*	*25.2*	*32.9*	*21.4*	*20.2*	*25.2*	*32.9*	*21.3*	**98.6**	*99.9*	*99.6*
California															
Natural Gas	**16.5**	**17.5**	**28.8**	**21.0**	*14.7*	*13.0*	*26.0*	*20.3*	*13.1*	*11.0*	*22.8*	*17.8*	**83.8**	*74.1*	*64.6*
Coal	**1.8**	**1.4**	**3.0**	**1.7**	*1.7*	*1.2*	*2.1*	*2.0*	*1.9*	*1.2*	*2.2*	*2.0*	**7.9**	*7.0*	*7.2*
Nuclear	**2.9**	**4.2**	**5.0**	**4.4**	*4.8*	*3.9*	*4.5*	*4.0*	*4.7*	*4.7*	*4.8*	*4.8*	**16.5**	*17.2*	*18.9*
Conventional hydropower	**2.0**	**3.2**	**3.7**	**2.5**	*3.5*	*6.7*	*6.1*	*3.2*	*4.3*	*7.6*	*6.9*	*3.7*	**11.3**	*19.5*	*22.5*
Nonhydro renewables (d)	**15.5**	**21.2**	**19.2**	**14.3**	*16.0*	*22.2*	*20.3*	*15.7*	*18.1*	*25.0*	*24.5*	*18.9*	**70.1**	*74.3*	*86.5*
Other energy sources (e)	**0.0**	**-0.1**	**0.0**	**0.0**	*0.1*	*-0.2*	*-0.2*	*0.1*	*0.3*	*0.0*	*-0.1*	*0.2*	**-0.1**	*-0.1*	*0.3*
Total generation	**38.7**	**47.4**	**59.6**	**43.9**	*40.8*	*46.9*	*58.9*	*45.4*	*42.3*	*49.4*	*60.9*	*47.4*	**189.6**	*192.0*	*200.1*
Net energy for load (f)	**56.2**	**63.8**	**77.8**	**61.0**	*58.9*	*61.8*	*76.1*	*60.5*	*57.8*	*61.8*	*76.2*	*60.4*	**258.9**	*257.3*	*256.3*

(a) Large-scale solar generation from power plants with more than 1 megawatt of capacity. Excludes generation from small-scale solar photovoltaic systems.

(b) Residual fuel oil, distillate fuel oil, petroleum coke, and other petroleum liquids.

(c) Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, nonrenewable waste, and miscellaneous technologies.

(d) Wind, large-scale solar, biomass, and geothermal

(e) Pumped storage hydroelectric, petroleum, other gases, batteries, and other nonrenewable fuels. See notes (b) and (c).

(f) Regional generation from generating units operated by electric power sector, plus energy receipts from minus energy deliveries to U.S. balancing authorities outside region.

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Data reflect generation supplied by power plants with a combined capacity of at least 1 megawatt operated by electric utilities and independent power producers.

Historical data: Latest data available from U.S. Energy Information Administration databases supporting the following reports: *Electric Power Monthly* , DOE/EIA-0226; and *Electric Power Annual* , DOE/EIA-0348.

Attachment STF-235-11-d

Table 8a. U.S. Renewable Energy Consumption (Quadrillion Btu)

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Electric Power Sector															
Geothermal	**0.034**	**0.035**	**0.035**	**0.034**	*0.034*	*0.034*	*0.035*	*0.035*	*0.032*	*0.030*	*0.035*	*0.033*	**0.137**	*0.138*	*0.131*
Hydroelectric Power (a)	**0.603**	**0.577**	**0.533**	**0.552**	*0.660*	*0.720*	*0.575*	*0.519*	*0.636*	*0.731*	*0.589*	*0.536*	**2.265**	*2.475*	*2.492*
Solar (b)	**0.189**	**0.309**	**0.307**	**0.207**	*0.246*	*0.393*	*0.392*	*0.266*	*0.322*	*0.509*	*0.517*	*0.352*	**1.012**	*1.298*	*1.700*
Waste Biomass (c)	**0.060**	**0.059**	**0.059**	**0.058**	*0.059*	*0.058*	*0.059*	*0.058*	*0.059*	*0.058*	*0.059*	*0.058*	**0.235**	*0.233*	*0.234*
Wood Biomass	**0.051**	**0.046**	**0.054**	**0.045**	*0.044*	*0.040*	*0.049*	*0.042*	*0.046*	*0.041*	*0.050*	*0.043*	**0.196**	*0.175*	*0.179*
Wind	**0.863**	**0.856**	**0.684**	**0.929**	*1.051*	*0.963*	*0.755*	*0.998*	*1.094*	*0.995*	*0.785*	*1.036*	**3.331**	*3.767*	*3.911*
Subtotal	**1.800**	**1.881**	**1.672**	**1.825**	*2.094*	*2.208*	*1.866*	*1.918*	*2.190*	*2.364*	*2.035*	*2.059*	**7.177**	*8.086*	*8.648*
Industrial Sector															
Biofuel Losses and Co-products (d)	**0.169**	**0.188**	**0.185**	**0.199**	*0.188*	*0.195*	*0.199*	*0.202*	*0.188*	*0.197*	*0.197*	*0.202*	**0.742**	*0.783*	*0.784*
Geothermal	**0.001**	**0.001**	**0.001**	**0.001**	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	**0.004**	*0.004*	*0.004*
Hydroelectric Power (a)	**0.002**	**0.002**	**0.002**	**0.002**	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	**0.008**	*0.008*	*0.008*
Solar (b)	**0.007**	**0.011**	**0.011**	**0.007**	*0.008*	*0.011*	*0.012*	*0.008*	*0.009*	*0.013*	*0.013*	*0.009*	**0.036**	*0.039*	*0.043*
Waste Biomass (c)	**0.042**	**0.040**	**0.037**	**0.041**	*0.040*	*0.039*	*0.039*	*0.041*	*0.040*	*0.039*	*0.039*	*0.041*	**0.159**	*0.159*	*0.159*
Wood Biomass	**0.334**	**0.340**	**0.344**	**0.338**	*0.340*	*0.344*	*0.357*	*0.360*	*0.349*	*0.347*	*0.359*	*0.361*	**1.356**	*1.400*	*1.416*
Subtotal	**0.552**	**0.575**	**0.575**	**0.586**	*0.576*	*0.585*	*0.602*	*0.610*	*0.585*	*0.591*	*0.603*	*0.611*	**2.288**	*2.373*	*2.390*
Commercial Sector															
Geothermal	**0.006**	**0.006**	**0.006**	**0.006**	*0.006*	*0.006*	*0.006*	*0.006*	*0.006*	*0.006*	*0.006*	*0.006*	**0.024**	*0.024*	*0.024*
Solar (b)	**0.028**	**0.042**	**0.042**	**0.028**	*0.032*	*0.047*	*0.047*	*0.032*	*0.037*	*0.053*	*0.053*	*0.037*	**0.141**	*0.158*	*0.180*
Waste Biomass (c)	**0.009**	**0.008**	**0.009**	**0.009**	*0.009*	*0.008*	*0.009*	*0.009*	*0.009*	*0.008*	*0.009*	*0.009*	**0.035**	*0.035*	*0.035*
Wood Biomass	**0.020**	**0.020**	**0.021**	**0.021**	*0.020*	*0.020*	*0.021*	*0.021*	*0.020*	*0.020*	*0.021*	*0.021*	**0.082**	*0.082*	*0.082*
Subtotal	**0.069**	**0.083**	**0.085**	**0.071**	*0.074*	*0.088*	*0.090*	*0.075*	*0.078*	*0.095*	*0.096*	*0.079*	**0.308**	*0.327*	*0.349*
Residential Sector															
Geothermal	**0.010**	**0.010**	**0.010**	**0.010**	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	**0.040**	*0.040*	*0.040*
Solar (e)	**0.065**	**0.099**	**0.097**	**0.067**	*0.076*	*0.116*	*0.116*	*0.080*	*0.086*	*0.129*	*0.128*	*0.087*	**0.328**	*0.388*	*0.430*
Wood Biomass	**0.112**	**0.113**	**0.115**	**0.115**	*0.112*	*0.113*	*0.115*	*0.115*	*0.112*	*0.113*	*0.115*	*0.115*	**0.455**	*0.455*	*0.455*
Subtotal	**0.187**	**0.222**	**0.222**	**0.192**	*0.198*	*0.239*	*0.241*	*0.204*	*0.208*	*0.252*	*0.252*	*0.212*	**0.822**	*0.883*	*0.924*
Transportation Sector															
Biodiesel, Renewable Diesel, and Other (f)	**0.080**	**0.095**	**0.089**	**0.110**	*0.110*	*0.112*	*0.108*	*0.134*	*0.120*	*0.122*	*0.120*	*0.149*	**0.374**	*0.464*	*0.510*
Ethanol (f)	**0.244**	**0.283**	**0.287**	**0.288**	*0.261*	*0.286*	*0.289*	*0.288*	*0.261*	*0.289*	*0.291*	*0.291*	**1.102**	*1.125*	*1.132*
Subtotal	**0.324**	**0.378**	**0.376**	**0.406**	*0.369*	*0.398*	*0.397*	*0.422*	*0.380*	*0.412*	*0.411*	*0.439*	**1.484**	*1.587*	*1.642*
All Sectors Total															
Biodiesel, Renewable Diesel, and Other (f)	**0.080**	**0.095**	**0.089**	**0.110**	*0.110*	*0.112*	*0.108*	*0.134*	*0.120*	*0.122*	*0.120*	*0.149*	**0.374**	*0.464*	*0.510*
Biofuel Losses and Co-products (d)	**0.169**	**0.188**	**0.185**	**0.199**	*0.188*	*0.195*	*0.199*	*0.202*	*0.188*	*0.197*	*0.197*	*0.202*	**0.742**	*0.783*	*0.784*
Ethanol (f)	**0.253**	**0.293**	**0.298**	**0.302**	*0.263*	*0.297*	*0.300*	*0.300*	*0.271*	*0.300*	*0.302*	*0.302*	**1.147**	*1.160*	*1.175*
Geothermal	**0.050**	**0.052**	**0.052**	**0.051**	*0.050*	*0.051*	*0.052*	*0.052*	*0.049*	*0.046*	*0.052*	*0.050*	**0.205**	*0.206*	*0.198*
Hydroelectric Power (a)	**0.605**	**0.580**	**0.535**	**0.555**	*0.663*	*0.723*	*0.578*	*0.521*	*0.639*	*0.734*	*0.591*	*0.539*	**2.275**	*2.485*	*2.503*
Solar (b)(e)	**0.286**	**0.455**	**0.451**	**0.303**	*0.363*	*0.567*	*0.567*	*0.386*	*0.453*	*0.704*	*0.711*	*0.486*	**1.495**	*1.883*	*2.353*
Waste Biomass (c)	**0.110**	**0.107**	**0.105**	**0.108**	*0.108*	*0.106*	*0.106*	*0.107*	*0.108*	*0.106*	*0.106*	*0.107*	**0.430**	*0.427*	*0.428*
Wood Biomass	**0.517**	**0.519**	**0.534**	**0.518**	*0.517*	*0.517*	*0.541*	*0.537*	*0.527*	*0.522*	*0.544*	*0.539*	**2.089**	*2.112*	*2.133*
Wind	**0.863**	**0.856**	**0.684**	**0.929**	*1.051*	*0.963*	*0.755*	*0.998*	*1.094*	*0.995*	*0.785*	*1.036*	**3.331**	*3.767*	*3.911*
Total Consumption	**2.932**	**3.139**	**2.929**	**3.095**	*3.311*	*3.519*	*3.196*	*3.229*	*3.441*	*3.714*	*3.397*	*3.401*	**12.095**	*13.255*	*13.952*

(a) Conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

(b) Solar consumption in the electric power, commercial, and industrial sectors includes energy produced from large scale (>1 MW) solar thermal and photovoltaic generators and small-scale (<1 MW) distrib

(c) Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass.

(d) Losses and co-products from the production of fuel ethanol and biomass-based diesel

(e) Solar consumption in the residential sector includes energy from small-scale (<1 MW) solar photovoltaic systems. Also includes solar heating consumption in all sectors.

(f) Fuel ethanol and biodiesel, renewable diesel, and other biofuels consumption in the transportation sector includes production, stock change, and imports less exports. Some biomass-based diesel may be consumed in the residential sector in heating oil.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from EIA databases supporting the following reports: *Electric Power Monthly* , DOE/EIA-0226 and *Renewable Energy Annual* , DOE/EIA-0603; *Petroleum Supply*

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 8b. U.S. Renewable Electricity Generation and Capacity

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Renewable Energy Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	**6,285**	**6,141**	**6,126**	**6,132**	*6,137*	*6,173*	*6,175*	*6,175*	*6,175*	*6,194*	*6,194*	*6,194*	**6,132**	*6,175*	*6,194*
Waste	**3,781**	**3,779**	**3,779**	**3,786**	*3,791*	*3,827*	*3,829*	*3,829*	*3,829*	*3,848*	*3,848*	*3,848*	**3,786**	*3,829*	*3,848*
Wood	**2,505**	**2,362**	**2,347**	**2,347**	*2,347*	*2,347*	*2,347*	*2,347*	*2,347*	*2,347*	*2,347*	*2,347*	**2,347**	*2,347*	*2,347*
Conventional Hydroelectric	**78,672**	**78,744**	**78,746**	**78,751**	*78,768*	*78,791*	*78,837*	*78,840*	*78,835*	*78,845*	*78,867*	*78,915*	**78,751**	*78,840*	*78,915*
Geothermal	**2,483**	**2,483**	**2,483**	**2,483**	*2,500*	*2,500*	*2,500*	*2,525*	*2,525*	*2,525*	*2,525*	*2,525*	**2,483**	*2,525*	*2,525*
Large-Scale Solar (b)	**50,325**	**52,315**	**55,341**	**61,325**	*65,188*	*69,455*	*72,085*	*83,130*	*85,829*	*94,171*	*96,110*	*107,254*	**61,325**	*83,130*	*107,254*
Wind	**120,947**	**124,488**	**126,443**	**134,320**	*136,291*	*138,529*	*138,529*	*141,907*	*142,057*	*143,067*	*143,067*	*146,174*	**134,320**	*141,907*	*146,174*
Other Sectors (c)															
Biomass	**6,280**	**6,284**	**6,289**	**6,289**	*6,289*	*6,289*	*6,281*	*6,281*	*6,281*	*6,293*	*6,293*	*6,293*	**6,289**	*6,281*	*6,293*
Waste	**775**	**778**	**778**	**778**	*778*	*778*	*778*	*778*	*778*	*778*	*778*	*778*	**778**	*778*	*778*
Wood	**5,505**	**5,505**	**5,510**	**5,510**	*5,510*	*5,510*	*5,503*	*5,503*	*5,503*	*5,515*	*5,515*	*5,515*	**5,510**	*5,503*	*5,515*
Conventional Hydroelectric	**279**	**279**	**277**	**277**	*279*	*279*	*279*	*279*	*279*	*279*	*279*	*279*	**277**	*279*	*279*
Large-Scale Solar (b)	**475**	**477**	**492**	**537**	*551*	*560*	*563*	*576*	*576*	*576*	*576*	*576*	**537**	*576*	*576*
Small-Scale Solar (d)	**28,760**	**30,243**	**31,438**	**32,721**	*33,791*	*34,882*	*36,022*	*37,133*	*38,189*	*39,280*	*40,404*	*41,565*	**32,721**	*37,133*	*41,565*
Residential Sector	**17,959**	**19,039**	**19,974**	**20,936**	*21,722*	*22,484*	*23,210*	*23,894*	*24,529*	*25,185*	*25,861*	*26,559*	**20,936**	*23,894*	*26,559*
Commercial Sector	**8,720**	**9,074**	**9,294**	**9,561**	*9,794*	*10,068*	*10,422*	*10,789*	*11,150*	*11,524*	*11,910*	*12,311*	**9,561**	*10,789*	*12,311*
Industrial Sector	**2,080**	**2,130**	**2,170**	**2,224**	*2,275*	*2,330*	*2,389*	*2,450*	*2,510*	*2,571*	*2,633*	*2,695*	**2,224**	*2,450*	*2,695*
Wind	**347**	**347**	**347**	**347**	*347*	*347*	*347*	*347*	*347*	*347*	*347*	*347*	**347**	*347*	*347*
Renewable Electricity Generation (billion kilowatthours)															
Electric Power Sector (a)															
Biomass	**7.2**	**6.8**	**7.2**	**6.6**	*6.6*	*6.3*	*6.9*	*6.4*	*6.8*	*6.4*	*6.9*	*6.5*	**27.7**	*26.2*	*26.5*
Waste	**4.0**	**3.9**	**3.9**	**3.8**	*3.9*	*3.8*	*3.9*	*3.8*	*3.9*	*3.9*	*3.9*	*3.8*	**15.6**	*15.4*	*15.4*
Wood	**3.2**	**2.8**	**3.4**	**2.7**	*2.7*	*2.5*	*3.0*	*2.6*	*2.8*	*2.5*	*3.1*	*2.7*	**12.2**	*10.8*	*11.1*
Conventional Hydroelectric	**68.7**	**65.8**	**60.8**	**62.4**	*74.2*	*80.9*	*64.6*	*58.2*	*71.4*	*82.1*	*66.1*	*60.2*	**257.6**	*277.9*	*279.9*
Geothermal	**3.8**	**3.9**	**4.0**	**3.8**	*3.8*	*3.9*	*4.0*	*4.0*	*3.7*	*3.4*	*4.0*	*3.8*	**15.6**	*15.7*	*14.9*
Large-Scale Solar (b)	**21.2**	**34.7**	**34.5**	**23.3**	*27.6*	*44.1*	*44.1*	*29.9*	*36.1*	*57.1*	*58.1*	*39.6*	**113.7**	*145.7*	*190.9*
Wind	**96.9**	**96.1**	**76.8**	**104.3**	*118.0*	*108.1*	*84.8*	*112.1*	*122.9*	*111.8*	*88.1*	*116.4*	**374.1**	*423.0*	*439.2*
Other Sectors (c)															
Biomass	**6.9**	**6.8**	**7.1**	**6.9**	*6.9*	*6.8*	*7.1*	*6.9*	*6.9*	*6.8*	*7.1*	*6.9*	**27.7**	*27.7*	*27.7*
Waste	**0.7**	**0.7**	**0.7**	**0.7**	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	**2.7**	*2.7*	*2.7*
Wood	**6.2**	**6.1**	**6.4**	**6.2**	*6.2*	*6.1*	*6.4*	*6.2*	*6.2*	*6.1*	*6.4*	*6.2*	**24.9**	*24.9*	*24.9*
Conventional Hydroelectric	**0.3**	**0.3**	**0.3**	**0.3**	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	**1.2**	*1.2*	*1.2*
Large-Scale Solar (b)	**0.2**	**0.2**	**0.2**	**0.2**	*0.2*	*0.3*	*0.3*	*0.2*	*0.2*	*0.3*	*0.3*	*0.2*	**0.8**	*0.9*	*0.9*
Small-Scale Solar (d)	**9.7**	**14.7**	**14.5**	**10.0**	*11.4*	*17.1*	*17.1*	*11.7*	*13.0*	*19.3*	*19.3*	*13.1*	**49.0**	*57.3*	*64.7*
Residential Sector	**5.9**	**9.1**	**8.9**	**6.2**	*7.1*	*10.8*	*10.8*	*7.4*	*8.1*	*12.2*	*12.1*	*8.2*	**30.0**	*36.1*	*40.6*
Commercial Sector	**3.1**	**4.5**	**4.5**	**3.0**	*3.5*	*5.0*	*5.0*	*3.5*	*4.0*	*5.7*	*5.8*	*3.9*	**15.1**	*17.0*	*19.4*
Industrial Sector	**0.8**	**1.1**	**1.1**	**0.8**	*0.8*	*1.2*	*1.3*	*0.9*	*0.9*	*1.4*	*1.4*	*1.0*	**3.8**	*4.2*	*4.7*
Wind	**0.3**	**0.3**	**0.2**	**0.4**	*0.3*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	**1.1**	*0.9*	*0.8*

(a) Power plants larger than or equal to one megawatt in size that are operated by electric utilities or independent power producers.

(b) Solar thermal and photovoltaic generating units at power plants larger than or equal to 1 megawatt.

(c) Businesses or individual households not primarily engaged in electric power production for sale to the public, whose generating capacity is at least one megawatt (except for small-scale solar photovoltaic data, which consists of systems smaller than 1 megawatt).

(d) Solar photovoltaic systems smaller than one megawatt.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from EIA databases supporting the Electric Power Monthly, DOE/EIA-0226.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

Attachment STF-235-11-d

Table 9a. U.S. Macroeconomic Indicators and CO2 Emissions

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2012 dollars - SAAR)	**19,056**	**19,368**	**19,479**	**19,799**	*19,973*	*20,144*	*20,339*	*20,477*	*20,605*	*20,726*	*20,855*	*20,989*	**19,425**	*20,233*	*20,794*
Real Personal Consumption Expend.															
(billion chained 2012 dollars - SAAR)	**13,283**	**13,666**	**13,732**	**13,910**	*14,009*	*14,095*	*14,189*	*14,266*	*14,351*	*14,441*	*14,537*	*14,640*	**13,648**	*14,140*	*14,492*
Real Private Fixed Investment															
(billion chained 2012 dollars - SAAR)	**3,564**	**3,593**	**3,585**	**3,606**	*3,667*	*3,699*	*3,731*	*3,750*	*3,770*	*3,791*	*3,816*	*3,846*	**3,587**	*3,712*	*3,806*
Business Inventory Change															
(billion chained 2012 dollars - SAAR)	**-94**	**-174**	**-60**	**119**	*95*	*134*	*170*	*180*	*178*	*166*	*159*	*150*	**-52**	*145*	*163*
Real Government Expenditures															
(billion chained 2012 dollars - SAAR)	**3,391**	**3,374**	**3,382**	**3,364**	*3,388*	*3,403*	*3,425*	*3,441*	*3,452*	*3,462*	*3,471*	*3,481*	**3,378**	*3,415*	*3,466*
Real Exports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**2,262**	**2,304**	**2,273**	**2,345**	*2,352*	*2,393*	*2,447*	*2,503*	*2,555*	*2,601*	*2,642*	*2,680*	**2,296**	*2,424*	*2,619*
Real Imports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**3,488**	**3,549**	**3,590**	**3,684**	*3,688*	*3,727*	*3,763*	*3,800*	*3,838*	*3,875*	*3,911*	*3,951*	**3,578**	*3,745*	*3,894*
Real Disposable Personal Income															
(billion chained 2012 dollars - SAAR)	**17,219**	**15,807**	**15,633**	**15,365**	*15,285*	*15,397*	*15,538*	*15,617*	*15,717*	*15,834*	*15,968*	*16,097*	**16,006**	*15,459*	*15,904*
Non-Farm Employment															
(millions)	**143.4**	**145.1**	**147.4**	**148.7**	*150.2*	*151.3*	*152.3*	*152.9*	*153.4*	*153.7*	*154.0*	*154.3*	**146.1**	*151.7*	*153.9*
Civilian Unemployment Rate															
(percent)	**6.2**	**5.9**	**5.1**	**4.2**	*3.8*	*3.6*	*3.4*	*3.3*	*3.3*	*3.4*	*3.4*	*3.5*	**5.4**	*3.5*	*3.4*
Housing Starts															
(millions - SAAR)	**1.60**	**1.59**	**1.56**	**1.59**	*1.56*	*1.51*	*1.46*	*1.42*	*1.38*	*1.37*	*1.35*	*1.35*	**1.59**	*1.49*	*1.36*
Industrial Production Indices (Index, 2017=100)															
Total Industrial Production	**98.3**	**99.9**	**100.7**	**101.7**	*103.4*	*104.2*	*105.2*	*105.9*	*106.7*	*107.2*	*107.7*	*108.2*	**100.2**	*104.7*	*107.5*
Manufacturing	**97.3**	**98.7**	**99.7**	**100.9**	*102.5*	*103.4*	*104.9*	*105.9*	*106.9*	*107.5*	*108.1*	*108.7*	**99.2**	*104.2*	*107.8*
Food	**101.2**	**100.5**	**99.4**	**101.1**	*101.5*	*101.8*	*102.0*	*102.3*	*102.6*	*103.0*	*103.3*	*103.8*	**100.6**	*101.9*	*103.2*
Paper	**93.9**	**95.0**	**95.1**	**95.7**	*95.9*	*95.9*	*96.2*	*96.6*	*97.0*	*97.2*	*97.2*	*97.1*	**94.9**	*96.1*	*97.1*
Petroleum and Coal Products	**90.5**	**95.9**	**94.7**	**95.8**	*94.5*	*96.4*	*97.3*	*98.1*	*98.5*	*98.7*	*98.8*	*98.9*	**94.2**	*96.6*	*98.7*
Chemicals	**91.8**	**99.3**	**99.6**	**101.4**	*102.3*	*102.8*	*103.7*	*104.4*	*105.1*	*105.7*	*106.0*	*106.5*	**98.0**	*103.3*	*105.8*
Nonmetallic Mineral Products	**97.4**	**95.4**	**96.5**	**98.2**	*98.7*	*98.8*	*99.1*	*99.9*	*100.6*	*101.4*	*102.1*	*103.0*	**96.9**	*99.1*	*101.8*
Primary Metals	**92.4**	**96.7**	**98.0**	**98.9**	*99.1*	*99.3*	*100.6*	*101.6*	*102.7*	*103.0*	*102.9*	*102.9*	**96.5**	*100.1*	*102.9*
Coal-weighted Manufacturing (a)	**92.3**	**96.4**	**96.3**	**97.5**	*97.6*	*98.0*	*99.0*	*99.7*	*100.5*	*100.9*	*101.0*	*101.2*	**95.6**	*98.6*	*100.9*
Distillate-weighted Manufacturing (a)	**101.2**	**102.5**	**102.7**	**104.2**	*104.9*	*105.6*	*106.4*	*107.2*	*107.8*	*108.1*	*108.3*	*108.8*	**102.6**	*106.0*	*108.3*
Electricity-weighted Manufacturing (a)	**94.2**	**97.6**	**97.7**	**99.0**	*99.8*	*100.5*	*101.6*	*102.5*	*103.3*	*103.7*	*103.9*	*104.2*	**97.1**	*101.1*	*103.8*
Natural Gas-weighted Manufacturing (a)	**90.7**	**96.8**	**95.8**	**97.2**	*97.7*	*98.3*	*99.4*	*100.2*	*100.9*	*101.2*	*101.3*	*101.5*	**95.1**	*98.9*	*101.2*
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	**2.63**	**2.69**	**2.73**	**2.79**	*2.80*	*2.81*	*2.83*	*2.84*	*2.85*	*2.87*	*2.88*	*2.89*	**2.71**	*2.82*	*2.87*
Producer Price Index: All Commodities															
(index, 1982=1.00)	**2.11**	**2.24**	**2.33**	**2.37**	*2.36*	*2.36*	*2.36*	*2.36*	*2.36*	*2.37*	*2.37*	*2.36*	**2.26**	*2.36*	*2.37*
Producer Price Index: Petroleum															
(index, 1982=1.00)	**2.00**	**2.36**	**2.55**	**2.72**	*2.58*	*2.56*	*2.44*	*2.22*	*2.16*	*2.15*	*2.11*	*2.03*	**2.41**	*2.45*	*2.11*
GDP Implicit Price Deflator															
(index, 2012=100)	**115.8**	**117.5**	**119.3**	**120.8**	*121.9*	*122.6*	*123.2*	*123.7*	*124.4*	*125.1*	*125.7*	*126.4*	**118.4**	*122.9*	*125.4*
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	**7,928**	**9,139**	**9,368**	**8,886**	*8,395*	*9,364*	*9,571*	*9,124*	*8,597*	*9,575*	*9,725*	*9,313*	**8,834**	*9,117*	*9,306*
Air Travel Capacity															
(Available ton-miles/day, thousands)	**537**	**596**	**658**	**664**	*626*	*690*	*718*	*688*	*667*	*697*	*726*	*704*	**614**	*681*	*699*
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	**245**	**340**	**372**	**370**	*370*	*410*	*414*	*389*	*378*	*421*	*434*	*413*	**332**	*396*	*412*
Airline Ticket Price Index															
(index, 1982-1984=100)	**202.5**	**232.2**	**221.9**	**212.2**	*223.1*	*242.4*	*238.5*	*248.4*	*216.5*	*243.4*	*247.7*	*261.7*	**217.2**	*238.1*	*242.3*
Raw Steel Production															
(million short tons per day)	**0.246**	**0.258**	**0.267**	**0.260**	*0.269*	*0.267*	*0.274*	*0.284*	*0.302*	*0.295*	*0.300*	*0.308*	**0.258**	*0.274*	*0.301*
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	**517**	**559**	**569**	**571**	*562*	*574*	*587*	*586*	*565*	*582*	*592*	*590*	**2,216**	*2,309*	*2,329*
Natural Gas	**485**	**353**	**373**	**416**	*500*	*351*	*375*	*437*	*485*	*356*	*377*	*436*	**1,626**	*1,662*	*1,654*
Coal	**255**	**228**	**306**	**229**	*242*	*221*	*299*	*242*	*248*	*211*	*286*	*236*	**1,018**	*1,004*	*981*
Total Energy (c)	**1,260**	**1,143**	**1,251**	**1,218**	*1,306*	*1,149*	*1,264*	*1,268*	*1,301*	*1,152*	*1,258*	*1,265*	**4,872**	*4,986*	*4,976*

(a) Fuel share weights of individual sector indices based on EIA *Manufacturing Energy Consumption Survey* .

(b) Total highway travel includes gasoline and diesel fuel vehicles.

(c) Includes electric power sector use of geothermal energy and non-biomass waste.

- = no data available

SAAR = Seasonally-adjusted annual rate

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17; Federal Highway Administration; and Federal Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System. U.S. macroeconomic forecasts are based on the IHS Markit model of the U.S. Economy.

Attachment STF-235-11-d

Table 9b. U.S. Regional Macroeconomic Data

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Real Gross State Product (Billion $2012)															
New England	**976**	**993**	**999**	**1,016**	*1,023*	*1,034*	*1,044*	*1,051*	*1,056*	*1,062*	*1,068*	*1,074*	**996**	*1,038*	*1,065*
Middle Atlantic	**2,740**	**2,788**	**2,806**	**2,844**	*2,877*	*2,896*	*2,927*	*2,947*	*2,965*	*2,980*	*2,999*	*3,018*	**2,795**	*2,912*	*2,990*
E. N. Central	**2,482**	**2,521**	**2,526**	**2,568**	*2,588*	*2,611*	*2,633*	*2,652*	*2,666*	*2,680*	*2,694*	*2,709*	**2,524**	*2,621*	*2,687*
W. N. Central	**1,201**	**1,220**	**1,222**	**1,239**	*1,248*	*1,258*	*1,270*	*1,277*	*1,283*	*1,290*	*1,298*	*1,305*	**1,221**	*1,263*	*1,294*
S. Atlantic	**3,381**	**3,433**	**3,458**	**3,515**	*3,542*	*3,573*	*3,606*	*3,628*	*3,649*	*3,669*	*3,691*	*3,714*	**3,447**	*3,587*	*3,681*
E. S. Central	**834**	**845**	**848**	**861**	*867*	*874*	*882*	*887*	*891*	*895*	*900*	*904*	**847**	*877*	*897*
W. S. Central	**2,332**	**2,365**	**2,380**	**2,428**	*2,453*	*2,478*	*2,507*	*2,527*	*2,549*	*2,568*	*2,587*	*2,606*	**2,376**	*2,491*	*2,578*
Mountain	**1,264**	**1,284**	**1,291**	**1,313**	*1,325*	*1,337*	*1,350*	*1,361*	*1,371*	*1,383*	*1,394*	*1,406*	**1,288**	*1,343*	*1,389*
Pacific	**3,675**	**3,746**	**3,774**	**3,838**	*3,870*	*3,903*	*3,938*	*3,966*	*3,990*	*4,013*	*4,038*	*4,064*	**3,758**	*3,920*	*4,027*
Industrial Output, Manufacturing (Index, Year 2017=100)															
New England	**95.1**	**96.4**	**97.8**	**93.5**	*94.8*	*95.7*	*96.9*	*97.9*	*98.7*	*99.3*	*99.8*	*100.3*	**95.7**	*96.3*	*99.5*
Middle Atlantic	**93.0**	**94.3**	**95.7**	**91.9**	*93.4*	*94.4*	*95.6*	*96.5*	*97.4*	*97.8*	*98.2*	*98.6*	**93.8**	*95.0*	*98.0*
E. N. Central	**95.0**	**95.8**	**96.8**	**100.2**	*101.9*	*103.1*	*104.6*	*106.0*	*107.0*	*107.8*	*108.4*	*109.0*	**97.0**	*103.9*	*108.1*
W. N. Central	**98.0**	**99.3**	**100.9**	**101.1**	*102.7*	*103.4*	*104.9*	*105.8*	*106.7*	*107.3*	*107.8*	*108.4*	**99.8**	*104.2*	*107.5*
S. Atlantic	**98.9**	**100.3**	**101.2**	**106.1**	*107.7*	*108.7*	*110.1*	*111.1*	*112.0*	*112.6*	*113.1*	*113.8*	**101.6**	*109.4*	*112.9*
E. S. Central	**97.8**	**98.9**	**99.9**	**106.2**	*107.4*	*108.2*	*109.5*	*110.5*	*111.2*	*111.8*	*112.4*	*113.0*	**100.7**	*108.9*	*112.1*
W. S. Central	**98.8**	**100.4**	**101.3**	**95.6**	*97.4*	*98.4*	*99.8*	*100.8*	*101.7*	*102.5*	*103.1*	*103.7*	**99.0**	*99.1*	*102.7*
Mountain	**105.2**	**107.6**	**108.0**	**114.9**	*116.5*	*117.5*	*119.0*	*120.2*	*121.2*	*122.0*	*122.6*	*123.4*	**108.9**	*118.3*	*122.3*
Pacific	**93.5**	**94.7**	**95.2**	**96.5**	*98.3*	*99.5*	*101.1*	*102.3*	*103.6*	*104.2*	*104.7*	*105.3*	**95.0**	*100.3*	*104.5*
Real Personal Income (Billion $2012)															
New England	**997**	**947**	**937**	**925**	*924*	*933*	*942*	*946*	*952*	*958*	*965*	*972*	**951**	*936*	*962*
Middle Atlantic	**2,624**	**2,460**	**2,444**	**2,403**	*2,407*	*2,417*	*2,440*	*2,452*	*2,468*	*2,482*	*2,500*	*2,518*	**2,483**	*2,429*	*2,492*
E. N. Central	**2,744**	**2,524**	**2,502**	**2,455**	*2,446*	*2,468*	*2,490*	*2,504*	*2,520*	*2,538*	*2,557*	*2,575*	**2,556**	*2,477*	*2,548*
W. N. Central	**1,278**	**1,196**	**1,182**	**1,162**	*1,157*	*1,166*	*1,177*	*1,184*	*1,193*	*1,202*	*1,212*	*1,222*	**1,204**	*1,171*	*1,207*
S. Atlantic	**3,719**	**3,441**	**3,420**	**3,388**	*3,381*	*3,410*	*3,445*	*3,466*	*3,493*	*3,521*	*3,553*	*3,584*	**3,492**	*3,426*	*3,538*
E. S. Central	**1,023**	**925**	**920**	**908**	*904*	*911*	*918*	*923*	*929*	*936*	*943*	*949*	**944**	*914*	*939*
W. S. Central	**2,246**	**2,086**	**2,076**	**2,064**	*2,065*	*2,085*	*2,108*	*2,122*	*2,140*	*2,159*	*2,179*	*2,199*	**2,118**	*2,095*	*2,169*
Mountain	**1,377**	**1,277**	**1,272**	**1,257**	*1,254*	*1,266*	*1,278*	*1,287*	*1,297*	*1,309*	*1,322*	*1,335*	**1,295**	*1,271*	*1,316*
Pacific	**3,256**	**3,076**	**3,055**	**3,013**	*2,997*	*3,022*	*3,047*	*3,064*	*3,082*	*3,105*	*3,131*	*3,156*	**3,100**	*3,032*	*3,119*
Households (Thousands)															
New England	**6,054**	**6,061**	**6,058**	**6,070**	*6,085*	*6,099*	*6,114*	*6,127*	*6,139*	*6,150*	*6,161*	*6,172*	**6,070**	*6,127*	*6,172*
Middle Atlantic	**16,405**	**16,405**	**16,395**	**16,420**	*16,456*	*16,495*	*16,530*	*16,567*	*16,601*	*16,631*	*16,660*	*16,687*	**16,420**	*16,567*	*16,687*
E. N. Central	**19,076**	**19,090**	**19,092**	**19,137**	*19,188*	*19,229*	*19,266*	*19,304*	*19,339*	*19,373*	*19,407*	*19,440*	**19,137**	*19,304*	*19,440*
W. N. Central	**8,717**	**8,729**	**8,734**	**8,759**	*8,786*	*8,817*	*8,845*	*8,868*	*8,890*	*8,912*	*8,934*	*8,955*	**8,759**	*8,868*	*8,955*
S. Atlantic	**26,284**	**26,358**	**26,405**	**26,518**	*26,641*	*26,769*	*26,886*	*26,995*	*27,100*	*27,199*	*27,297*	*27,397*	**26,518**	*26,995*	*27,397*
E. S. Central	**7,816**	**7,830**	**7,839**	**7,865**	*7,893*	*7,922*	*7,949*	*7,972*	*7,994*	*8,014*	*8,035*	*8,056*	**7,865**	*7,972*	*8,056*
W. S. Central	**15,332**	**15,379**	**15,415**	**15,485**	*15,562*	*15,639*	*15,711*	*15,775*	*15,836*	*15,894*	*15,954*	*16,013*	**15,485**	*15,775*	*16,013*
Mountain	**9,612**	**9,653**	**9,687**	**9,743**	*9,800*	*9,856*	*9,909*	*9,956*	*10,001*	*10,047*	*10,090*	*10,135*	**9,743**	*9,956*	*10,135*
Pacific	**19,002**	**18,992**	**18,976**	**19,006**	*19,053*	*19,098*	*19,141*	*19,173*	*19,202*	*19,231*	*19,263*	*19,297*	**19,006**	*19,173*	*19,297*
Total Non-farm Employment (Millions)															
New England	**7.0**	**7.1**	**7.2**	**7.3**	*7.3*	*7.4*	*7.4*	*7.5*	*7.5*	*7.5*	*7.5*	*7.5*	**7.1**	*7.4*	*7.5*
Middle Atlantic	**18.3**	**18.5**	**18.8**	**18.9**	*19.1*	*19.3*	*19.5*	*19.5*	*19.6*	*19.7*	*19.7*	*19.8*	**18.6**	*19.4*	*19.7*
E. N. Central	**20.9**	**21.1**	**21.4**	**21.5**	*21.8*	*21.9*	*22.0*	*22.1*	*22.2*	*22.2*	*22.2*	*22.3*	**21.2**	*22.0*	*22.2*
W. N. Central	**10.3**	**10.4**	**10.5**	**10.6**	*10.7*	*10.7*	*10.8*	*10.8*	*10.8*	*10.9*	*10.9*	*10.9*	**10.5**	*10.8*	*10.9*
S. Atlantic	**27.9**	**28.1**	**28.7**	**28.9**	*29.2*	*29.4*	*29.6*	*29.7*	*29.8*	*29.9*	*30.0*	*30.0*	**28.4**	*29.5*	*29.9*
E. S. Central	**8.0**	**8.1**	**8.2**	**8.2**	*8.3*	*8.3*	*8.4*	*8.4*	*8.4*	*8.4*	*8.5*	*8.5*	**8.1**	*8.4*	*8.4*
W. S. Central	**17.1**	**17.3**	**17.6**	**17.8**	*18.0*	*18.1*	*18.2*	*18.3*	*18.4*	*18.4*	*18.5*	*18.5*	**17.5**	*18.1*	*18.4*
Mountain	**10.7**	**10.9**	**11.1**	**11.2**	*11.3*	*11.4*	*11.4*	*11.5*	*11.5*	*11.6*	*11.6*	*11.7*	**11.0**	*11.4*	*11.6*
Pacific	**21.9**	**22.4**	**22.9**	**23.1**	*23.4*	*23.6*	*23.8*	*23.9*	*24.0*	*24.0*	*24.0*	*24.1*	**22.6**	*23.7*	*24.0*

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17.

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: U.S. macroeconomic forecasts are based on the IHS Markit model of the U.S. Economy.

Attachment STF-235-11-d

Table 9c. U.S. Regional Weather Data

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Heating Degree Days															
New England	**3,016**	**783**	**86**	**1,923**	*3,153*	*864*	*136*	*2,150*	*3,102*	*859*	*136*	*2,150*	**5,809**	*6,303*	*6,247*
Middle Atlantic	**2,817**	**665**	**56**	**1,721**	*2,932*	*688*	*88*	*1,971*	*2,849*	*681*	*88*	*1,970*	**5,258**	*5,679*	*5,588*
E. N. Central	**3,086**	**708**	**69**	**1,889**	*3,214*	*723*	*134*	*2,261*	*3,090*	*717*	*134*	*2,261*	**5,752**	*6,333*	*6,203*
W. N. Central	**3,229**	**720**	**88**	**2,027**	*3,323*	*701*	*168*	*2,477*	*3,244*	*706*	*168*	*2,478*	**6,064**	*6,669*	*6,595*
South Atlantic	**1,347**	**212**	**10**	**797**	*1,388*	*189*	*13*	*949*	*1,379*	*191*	*13*	*947*	**2,367**	*2,540*	*2,531*
E. S. Central	**1,789**	**312**	**19**	**1,034**	*1,821*	*242*	*22*	*1,315*	*1,794*	*247*	*22*	*1,315*	**3,154**	*3,400*	*3,377*
W. S. Central	**1,296**	**121**	**1**	**497**	*1,133*	*74*	*5*	*833*	*1,210*	*90*	*5*	*832*	**1,915**	*2,044*	*2,137*
Mountain	**2,306**	**663**	**110**	**1,639**	*2,232*	*693*	*145*	*1,883*	*2,262*	*703*	*145*	*1,882*	**4,717**	*4,952*	*4,992*
Pacific	**1,562**	**483**	**77**	**1,203**	*1,488*	*615*	*89*	*1,231*	*1,540*	*607*	*90*	*1,233*	**3,325**	*3,424*	*3,469*
U.S. Average	**2,107**	**472**	**51**	**1,306**	*2,122*	*487*	*77*	*1,541*	*2,102*	*487*	*77*	*1,539*	**3,935**	*4,228*	*4,205*
Heating Degree Days, Prior 10-year Average															
New England	**3,133**	**855**	**107**	**2,100**	*3,101*	*853*	*108*	*2,104*	*3,153*	*867*	*108*	*2,111*	**6,195**	*6,165*	*6,239*
Middle Atlantic	**2,912**	**677**	**71**	**1,911**	*2,886*	*684*	*71*	*1,908*	*2,943*	*693*	*72*	*1,911*	**5,572**	*5,549*	*5,620*
E. N. Central	**3,157**	**731**	**104**	**2,170**	*3,133*	*727*	*97*	*2,162*	*3,209*	*739*	*97*	*2,172*	**6,161**	*6,119*	*6,217*
W. N. Central	**3,248**	**728**	**133**	**2,368**	*3,219*	*726*	*125*	*2,357*	*3,301*	*745*	*127*	*2,369*	**6,477**	*6,427*	*6,542*
South Atlantic	**1,395**	**181**	**11**	**916**	*1,380*	*187*	*11*	*905*	*1,406*	*190*	*10*	*901*	**2,503**	*2,483*	*2,507*
E. S. Central	**1,771**	**231**	**16**	**1,249**	*1,763*	*243*	*15*	*1,227*	*1,809*	*250*	*14*	*1,227*	**3,267**	*3,248*	*3,300*
W. S. Central	**1,140**	**86**	**3**	**786**	*1,145*	*93*	*3*	*754*	*1,168*	*97*	*3*	*766*	**2,015**	*1,995*	*2,034*
Mountain	**2,188**	**704**	**135**	**1,850**	*2,181*	*685*	*132*	*1,818*	*2,194*	*696*	*135*	*1,828*	**4,877**	*4,816*	*4,853*
Pacific	**1,461**	**553**	**81**	**1,147**	*1,455*	*523*	*79*	*1,136*	*1,448*	*524*	*79*	*1,142*	**3,242**	*3,192*	*3,193*
U.S. Average	**2,112**	**483**	**65**	**1,487**	*2,096*	*479*	*62*	*1,473*	*2,130*	*485*	*63*	*1,477*	**4,147**	*4,110*	*4,155*
Cooling Degree Days															
New England	**0**	**142**	**453**	**6**	*0*	*79*	*402*	*2*	*0*	*79*	*402*	*2*	**601**	*483*	*483*
Middle Atlantic	**0**	**182**	**633**	**24**	*0*	*148*	*532*	*5*	*0*	*149*	*533*	*5*	**839**	*685*	*686*
E. N. Central	**2**	**250**	**629**	**30**	*0*	*216*	*519*	*6*	*0*	*216*	*519*	*6*	**911**	*741*	*741*
W. N. Central	**8**	**310**	**745**	**23**	*3*	*263*	*653*	*9*	*3*	*262*	*652*	*9*	**1,086**	*928*	*926*
South Atlantic	**151**	**617**	**1,171**	**285**	*123*	*655*	*1,160*	*237*	*124*	*653*	*1,161*	*238*	**2,225**	*2,175*	*2,176*
E. S. Central	**41**	**436**	**1,018**	**127**	*27*	*513*	*1,034*	*62*	*28*	*510*	*1,033*	*62*	**1,621**	*1,636*	*1,634*
W. S. Central	**89**	**769**	**1,474**	**315**	*93*	*903*	*1,493*	*192*	*81*	*879*	*1,494*	*192*	**2,647**	*2,682*	*2,646*
Mountain	**10**	**531**	**967**	**68**	*16*	*426*	*930*	*76*	*17*	*427*	*931*	*76*	**1,575**	*1,447*	*1,451*
Pacific	**24**	**255**	**703**	**59**	*27*	*167*	*590*	*60*	*27*	*167*	*589*	*59*	**1,041**	*843*	*843*
U.S. Average	**49**	**412**	**903**	**128**	*44*	*404*	*848*	*93*	*43*	*401*	*850*	*93*	**1,492**	*1,389*	*1,387*
Cooling Degree Days, Prior 10-year Average															
New England	**0**	**80**	**474**	**1**	*0*	*87*	*471*	*2*	*0*	*87*	*463*	*2*	**555**	*560*	*552*
Middle Atlantic	**0**	**163**	**610**	**6**	*0*	*162*	*609*	*8*	*0*	*159*	*599*	*8*	**779**	*779*	*766*
E. N. Central	**3**	**234**	**572**	**7**	*3*	*238*	*571*	*9*	*1*	*230*	*558*	*10*	**816**	*821*	*798*
W. N. Central	**7**	**294**	**686**	**10**	*7*	*298*	*681*	*11*	*4*	*287*	*666*	*12*	**997**	*998*	*969*
South Atlantic	**143**	**679**	**1,194**	**260**	*147*	*668*	*1,189*	*269*	*141*	*670*	*1,189*	*274*	**2,276**	*2,272*	*2,273*
E. S. Central	**42**	**532**	**1,065**	**74**	*44*	*518*	*1,057*	*84*	*36*	*512*	*1,056*	*86*	**1,713**	*1,703*	*1,690*
W. S. Central	**114**	**881**	**1,568**	**210**	*113*	*853*	*1,536*	*224*	*105*	*842*	*1,531*	*225*	**2,772**	*2,726*	*2,703*
Mountain	**24**	**441**	**949**	**85**	*23*	*459*	*946*	*84*	*23*	*452*	*942*	*83*	**1,499**	*1,512*	*1,500*
Pacific	**31**	**193**	**648**	**86**	*31*	*208*	*664*	*85*	*31*	*209*	*658*	*84*	**959**	*989*	*982*
U.S. Average	**52**	**413**	**892**	**104**	*53*	*412*	*889*	*109*	*50*	*409*	*884*	*110*	**1,461**	*1,463*	*1,453*

- = no data available

Notes: EIA completed modeling and analysis for this report on February 3, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regional degree days for each period are calculated by EIA as contemporaneous period population-weighted averages of state degree day data published by the National

See *Change in Regional and U.S. Degree-Day Calculations* (http://www.eia.gov/forecasts/steo/special/pdf/2012_sp_04.pdf) for more information.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions. See "Census division" in EIA's Energy Glossary (http://www.eia.gov/tools/glossary/) for a list of states in each region.

Historical data: Latest data available from U.S. Department of Commerce, National Oceanic and Atmospheric Association (NOAA).

Forecasts: Based on forecasts by the NOAA Climate Prediction Center (http://www.cpc.ncep.noaa.gov/pacdir/DDdir/NHOME3.shtml).

Appendix to the February 2022 *Short-Term Energy Outlook*

This appendix is prepared in fulfillment of section 1245(d)(4)(A) of the National Defense Authorization Act (NDAA) for Fiscal Year 2012, as amended. The law requires the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy, to submit to Congress a report on the availability and price of petroleum and petroleum products produced in countries other than Iran in the two-month period preceding the submission of the report. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. Government. The data in this appendix, therefore, should not be construed as representing those of the U.S. Department of Energy or other federal agencies.

EIA consulted with the U.S. Department of the Treasury, the U.S. Department of State, and the intelligence community in the process of developing the NDAA report, which was previously published as a stand-alone report. Detailed background and contextual information not repeated here can be found in early editions of the NDAA report.

This appendix is published in the *Short-Term Energy Outlook* in even numbered months.

Table a1. Summary of Estimated Petroleum and Other Liquids Quantities

	Dec 2021	Jan 2022	Dec 2021 – Jan 2022 Average	Dec 2020 - Jan 2021 Average	2018 - 2020 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	98.6	99.0	98.8	93.2	98.2
Global Petroleum and Other Liquids Consumption (b)	101.2	99.0	100.1	94.0	97.3
Biofuels Production (c)	2.4	2.2	2.3	2.3	2.7
Biofuels Consumption (c)	2.6	2.5	2.5	2.5	2.6
Iran Liquid Fuels Production	3.6	3.8	3.7	3.1	3.6
Iran Liquid Fuels Consumption	2.2	2.4	2.3	2.1	1.9
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	92.6	93.0	92.8	87.9	91.9
Consumption (d)	96.4	94.1	95.2	89.4	92.8
Production minus Consumption	-3.8	-1.1	-2.4	-1.5	-0.9
World Inventory Net Withdrawals Including Iran	2.6	0.0	1.3	0.8	-0.9
Estimated OECD Inventory Level (e) (million barrels)	2,682	2,676	2,679	3,025	2,943
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	4.2	4.2	4.2	6.1	3.2

Note: The term "petroleum and other liquids" encompasses crude oil, lease condensate, natural gas liquids, biofuels, coal-to-liquids, gas-to-liquids, and refinery processing gains, which are important to consider in concert due to the inter-related supply, demand, and price dynamics of petroleum, petroleum products, and related fuels.

(a) Production includes crude oil (including lease condensates), natural gas liquids, other liquids, and refinery processing gains.

(b) Consumption of petroleum by the OECD countries is synonymous with "products supplied," defined in the glossary of the EIA Petroleum Supply Monthly, DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel, and loss, and bunkering.

(c) Biofuels production and consumption are based on EIA estimates as published in the International Energy Statistics. Biofuels production in the third quarter tends to be at its highest level in the year as ethanol production in Brazil reaches its seasonal peak and is typically lowest in the first quarter as seasonal production falls in the South/South-Central region of Brazil.

(d) Global production of petroleum and petroleum products outside of Iran is derived by subtracting biofuels production and Iran liquid fuels production from global liquid fuels production. The same method is used to calculate global consumption outside of Iran.

(e) Estimated inventory level is for OECD countries only.

(f) EIA defines surplus oil production capacity as potential oil production that could be brought online within 30 days and sustained for at least 90 days, consistent with sound business practices. This does not include oil production increases that could not be sustained without degrading the future production capacity of a field.
Source: U.S. Energy Information Administration.

Table a2. Crude Oil and Petroleum Product Price Data

Item	Dec 2021	Jan 2022	Dec 2021 - Jan 2022 Average	Dec 2020 – Jan 2021 Average	2018 – 2020 Average
Brent Front Month Futures Price ($ per barrel)	74.80	85.57	79.93	52.64	59.69
WTI Front Month Futures Price ($ per barrel)	71.69	82.98	77.07	49.46	53.76
Dubai Front Month Futures Price ($ per barrel)	73.40	83.95	78.42	52.40	59.01
Brent 1st - 13th Month Futures Spread ($ per barrel)	4.39	8.21	6.21	1.77	1.01
WTI 1st - 13th Month Futures Spread ($ per barrel)	4.67	9.09	6.77	1.61	0.57
RBOB Front Month Futures Price ($ per gallon)	2.14	2.40	2.26	1.42	1.61
Heating Oil Front Month Futures Price ($ per gallon)	2.25	2.61	2.42	1.51	1.76
RBOB - Brent Futures Crack Spread ($ per gallon)	0.35	0.36	0.36	0.17	0.19
Heating Oil - Brent Futures Crack Spread ($ per gallon)	0.47	0.57	0.52	0.26	0.34

(a) Brent refers to Brent crude oil traded on the Intercontinental Exchange (ICE).
(b) WTI refers to West Texas Intermediate crude oil traded on the New York Mercantile Exchange (NYMEX), owned by Chicago Mercantile Exchange (CME) Group.
(c) RBOB refers to r*eformulated blendstock for oxygenate blending traded on the NYMEX.*
Source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME), Intercontinental Exchange (ICE), and Dubai Mercantile Exchange (DME).